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Pharmaceutical Society of Ireland.
Chemists' and Druggists' Society of Ireland.
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South African Pharmaceutical Association.
Pharmaceutical Society of Natal.
Pharmaceutical Society of the South African Republic.
Central Pharmaceutical Association of N.Z.
Otago Pharmaceutical Association, N.Z.
Pharmaceutical Society of Queensland.
Pharmaceutical Society of South Australia.
Pharmaceutical Society of Tasmania.
Pharmaceutical Society of Western Australia.

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C. & D. DIARY, 1899.

BEFORE the end of this month we shall be going to press with THE CHEMISTS' AND DRUGGISTS' DIARY for 1899. Therefore we strongly urge upon wholesale houses and advertisers generally to secure space in it for their advertisements without delay. We have been saying during the past month that

The "C. & D. Diary" is used
Every day of the year,
All the year round,
In thousands of pharmacies
In every country in the world.

This is not a word too much. These five lines speak to the intelligent advertiser of the possibilities of DIARY Advertising; effectively done it is effective in results and fruitful all the year round. Application should be made to the Publisher, 42 Cannon Street, London, E.C., for particulars or space.

Summary.

THEY are short of apprentices at Edinburgh (p. 660).

THE LIVERPOOL CHEMISTS' ASSOCIATION celebrates its Jubilee next year (p. 663).

THE Birmingham Coroner complimented a chemist on his poison-book, which gave a page to each purchase (p. 660).

MR. E. DOWZARD proposes to estimate the colour-strength of saffron by comparison with chromic-acid solution (p. 669).

AN Irish chemist sends us a complaint of serious dilatoriness against a firm of photographic-sundries dealers (p. 631).

WILL chemists who propagate the idea that the C. & D. opposes trade associations please read the paragraph on p. 675?

PROFESSOR GAY, of Montpellier, whose pharmaceutical work we have frequently noticed, has died at the early age of 41 (p. 631).

MESSRS. SOUTHAL BROTHERS & BARCLAY (LIMITED) report that their shares were applied for more than three times over (p. 665).

NEW REMEDIES from a new point of view was the topic of the presidential address to the Chemists' Assistants' Association (p. 670).

THE principal of the College of Pharmacy at Kansas sends us correct details of the curriculum for the pharmaceutical degrees there granted (p. 630).

PORTRAITS of Colonel Clifford Probyn, the pharmaceutical Sheriff of London City (p. 663), and of the late Mr. Charles Christy (p. 667) are given in this issue.

THE NORTH STAFFORDSHIRE CHEMISTS' ASSOCIATION commenced its third session last week, when Mr. Averil, the President, spoke on the new B.P. (p. 669).

A FRENCH dramatic critic has discovered that a camera with a pinhole instead of a lens is just as good, and he has started on mathematical calculations to fix the position of the dry-plate (p. 661).

PROCEEDINGS have been taken against Boots (Limited) for selling defective lime-water. The prosecutors with the charge against the company, and secured the conviction of the branch manager (p. 663).

A NUMBER of Minor contributors deny that the Pharmaceutical examiners are discourteous or that the dispensing is out of the way (p. 677). Older stagers discuss the matter on p. 680, and our own comments will be found on p. 673.

TRADE is better this week, wholesalers being busy. Ergot is dearer and ipecac. firmer. Makers of acetanilide have combined and fixed low prices. Iodine-makers are trying to renew their compact, so far with indifferent success (p. 634).

THE BOARD OF TRADE has compiled a Blue-book from Consular reports on the way British manufacturers succeed in letting foreign business slip past them. We see excuses for that, and recommend the utility of the middleman (p. 673).

THE P.A.T.A. have drafted a scheme of a Defence Fund, which is to be submitted to local branches for consideration. The idea is to provide an efficient defence for subscribers whenever they are attacked under certain specified statutes (p. 682).

THE firms of Edward Cook & Co., soap-makers, Bow, and Johnson & Hooper, manufacturing chemists, Stratford, are among the new company registrations this week. Mr. Alchin's retail business at Hampstead has also been registered (p. 665).

A WHITECHAPEL unregistered "chemist" has had to pay the Pharmaceutical Society 10*l.* and costs for infringing the Pharmacy Act. A case under the Irish Pharmacy Act has been withdrawn, and the decision in another case has been deferred (p. 663).

OWING to the deterioration in quality of star-anise oil from Hong-Kong merchants in Tonkin have got in touch with the peasant distillers, and have established a system of constant supply of pure oil *via* Hai Phong. The system is described on p. 674.

English News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

The Spectacle-makers' Company.

At the Court of this Company, held on October 13, the officers for the coming year were elected. Mr. W. H. E. Thornthwaite, F.R.A.S., was elected Master, in succession to the Lord Mayor. Sir Reginald Hanson, Bart., M.P. was elected Upper Warden, and Sir Wm. Hart-Dyke, M.P., Renter Warden. The Court subsequently dined together, and in the speeches several references were made to the Optical Exhibition and educational scheme of the Company.

A Chemist on the Use of Boracic Acid.

Mr. W. Price, chemist and druggist, Birmingham, who is a candidate for re-election to the City Council, addressing a meeting on October 14, made a reference to the use of boracic acid as a food-preservative—a matter which has been engaging a good deal of attention in Birmingham recently. He contended that the Local Government Board should issue a definite declaration on the subject which should be applicable to the whole country. There appeared to be difference of opinion among scientific experts, because while in Birmingham there had been prosecutions which resulted in convictions, in other parts of the country the Magistrates declined to convict. Some medical experts stated that the small quantities used for preservative purposes were not injurious. He did not put his opinion against that of scientific men; but it was important that they should know whether, bearing in mind that the acid was introduced into milk, bacon, cheese, and butter, sausages, &c., the continuous taking of small quantities was not injurious to the system. Hence the importance of some Government department taking up the subject.

Cycling Chemist Injured.

A serious accident happened on October 16 to Mr. H. T. Johnson, an assistant with Mr. C. R. Sharman, chemist and druggist, New Road, Gravesend. Whilst cycling he fell from his machine and sustained severe injuries.

Building By-laws Broken.

Mr. T. E. Eastwood, chemist, Fairfield, near Manchester, was on October 12 charged before the Ashton County Magistrates with failing to give notice of his intention to build and to leave a blockplan of such buildings; with not preparing plans according to the required scale; with not erecting buildings in compliance with the plans deposited; and, lastly, with bringing forward his property to a wrong building line after being warned by the District Council. The charges were in respect to a block of five shops which Mr. Eastwood was erecting in Fairfield. He was fined 20s. and 10l. costs.

Drug-contracts.

Manchester.—Messrs. Oldfield, Pattinson & Co., for drugs and chemicals to the workhouse.

The Retford Board of Guardians resolved last week to provide all drugs in future, and, as a consequence, Dr. 'bomson (medical officer) agreed to a reduction of 10l. from his salary.

Macclesfield.—The General Apothecaries' Company for drugs (wholesale), Messrs. Wood & Pass for drugs (retail), Messrs. Maw, Son & Thompson for surgical instruments, Mr. Duncalf for soda-water.

Carbolic as a Parish Disinfectant.

The Clerkenwell Vestry have again discussed the question of the disinfection of dustbins, on the report of the Public Health Committee that, in their opinion, nothing can be procured to efficiently disinfect the dustbins. Several vestrymen objected to give up the supply of carbolic powder, but the medical officer (Mr. Glaister) said: I can only repeat what I have said before—viz., that carbolic powder or the acid, unless used in very large quantities, is only a deodoriser, and not a disinfectant; in fact, more of a danger than a blessing to the people, because it places them in a false security. There is no danger in a bad smell, but it is

in the disease-germs that fly about from the dustbins, &c. The distribution of disinfectants has cost this parish 300l. a year, and, if that sum were spent in more frequently emptying the dustbins, considerably more good would be done. If the free distribution of carbolic powder and acid has been stopped to the people, the sanitation of the parish is not neglected. Immediately on a complaint of a bad smell being made an officer is sent to investigate and remedy, which is far more beneficial than leaving it to the people themselves to throw carbolic over decaying matter, and thus, whilst destroying the bad smell, leaving the danger as active as ever. The report of the committee was adopted.

Pharmaceutical Students at the Docks.

The students of the Imperial College of Chemistry, under the supervision of Mr. F. Davis, their principal, were on October 17 conducted over a portion of the London Docks. The warehouses containing specimens of pharmaceutical and chemical interest were chiefly visited, and upon the spice-floor were seen nutmegs to the value of 80,000l.; and mace, including varieties known as false mace and ground wild mace, from the Banda Islands, to the value of 10,000l. Penang cloves exceeded 45,000l.; cinnamon, 8,000l.; and 15,000 bundles of cinchona were priced at 45,000l. In the iodine-warehouses 80,000 kegs were shown, each keg being worth 90l. The mercury-cellars contain 30,000 bottles of mercury, valued at 7l. each; and a trough of mercury, in which a 28-lb. weight was floating, was of considerable interest to the visitors, as was the museum of specimens of crude drugs and essential oils.

Alleged Fraud.

At Lancaster Police Court, on October 14, Mary Ellen Jackson (23) was charged with obtaining money by false pretences from Mr. E. J. Cuthbert, chemist and druggist, on October 1. It was stated that a series of similar frauds would be preferred against the prisoner, whose *modus operandi* was to represent that she was collecting funds for a religious organisation. By this means she obtained 1s. from Mr. Cuthbert, and evidence was called to prove that the fund for which she was collecting did not exist. She was remanded in order that further inquiries might be made.

Charges of Stealing.

At the Guildhall, on October 17, Wm. Locker and John Doyle, in the service of Messrs. Sparkes, wholesale druggists, of Creechurch Lane, E.C., were charged with stealing a large quantity of fancy soaps, scents, and cut-glass bottles, &c., belonging to their employers; and Christian Schroeder (70) described as an agent, giving an address in Stepney, was charged with receiving some of the scent and scaps, well knowing them to have been stolen. Police evidence having been given the prisoners were remanded, bail being allowed.

At Greenwich Police Court, on October 17, Frank Chabot (39) was charged, on remand, with stealing 4s. 11d., the money of his employers, Messrs. Parkes (Limited), chemists, High Street, Lewisham, and on his own confession with stealing ninety-three tubes of artists' colours, bottle of coffee-extract, and other articles, value 17s. 3d. Mr. J. C. Emslie, secretary of the company, said that the prisoner had been manager of the Lewisham branch for eight or nine months, and after the shop was closed on October 14 the prisoner remained behind and served some customers with goods, for which he received money which he failed to pay over. The artists' requisites were found at his house. The prisoner was sent to gaol for one month with hard labour.

A lad named Mead was sentenced at North London Police Court, on October 19, to three months' imprisonment, with hard labour, for being concerned with three other boys in stealing a box containing six dozens of menthol, the property of M. Bailey & Co. The prosecutors' carman had stopped in the Kingsland Road, and during his temporary absence the robbery was effected.

The Chemist not to Blame.

An inquest was held at Llanelly, on October 14, on the body of a married woman named Walker, whose death was alleged to be due to an attempt to procure abortion. A neighbour gave evidence that deceased told her she had taken

6*℥*. worth of Holland's gin, 2*℥*. worth of essence of pennyroyal, and a handful of "Lad's love." Mr. J. Davies, chemist, said deceased's daughter called at his shop with a note for 2*℥*. worth of essence of pennyroyal, and received 2 dr. Pennyroyal was very beneficial for stomachic pains, and it was nothing unusual for persons to ask for it. It was a harmless herb, so he asked no questions. Dr. Roderick said death was due to peritonitis. Deceased had been eating cocoanut, which sometimes induced peritonitis. He could not say that the mixtures taken by the woman hastened her death. "Lad's love" was a herb common to this country, and was harmless unless taken in large doses, while pennyroyal, though not in the British Pharmacopœia, was useful in cases of spasms and colic. The jury returned a verdict that death was caused by peritonitis, the Coroner observing that no blame attached to Mr. Davies.

The Coroner and the Gripe-syrup.

On October 11 the Borough Coroner (Dr. Thomsen) held an inquiry at Oldham into the death of William Claber, an infant, aged three weeks. The Coroner said the mother of the child bought a bottle of gripe-mixture from Messrs. Braddock & Bagshaw, chemists, Yorkshire Street, and gave it 10 drops in a teaspoonful of warm water, according to instructions. The inference was that the mixture was poisonous, and he had ordered Dr. Hodgson to make a *post-mortem* examination. The bottle from which the dose was given was labelled "The Golden Gripe-syrup, a medicine for the relief and cure of griping pains arising from indigestion and flatulence in infants, especially during the period of teething; also for adults suffering from diarrhoea, spasms, wind, &c." For an infant the dose was 10 drops in warm water, to be increased gradually to half a teaspoonful. In smaller print it was stated "this syrup contains, along with other valuable medicines, a quantity of morphine, and in accordance with the Pharmaceutical Act it is hereby labelled 'Poison,' but its composition remains unaltered." Dr. Lendrum said the child's death was, in his opinion, due to narcotic-poisoning. The Coroner then interrogated the doctor as to the possibility of an inexperienced person being able to drop 10 drops accurately. The doctor admitted it was not easy for even an experienced person to do so, and on being requested to try with the bottle of gripe-syrup produced only succeeded with much difficulty. Dr. Hodgson, who gave evidence of the *post-mortem* examination, was also put to the test, and dropped thirteen where ten was wanted.

Mr. W. Bagshaw, chemist and druggist, said the bottle produced was purchased at his shop. It contained $\frac{1}{2}$ gr. of morphia in 1 oz., and $\frac{1}{16}$ gr. in 10 minims. The remainder of the contents was made simply of syrup and dill-water. The Coroner: You have been selling this for some considerable time? Witness: Something like twenty years, sir. And has it never occurred to you that it is a risky proceeding selling this for young infants?—I do not sell it for young infants if it can be avoided. What do you do to avoid it?—We do ask some for whom it is for, but we cannot ask all. The Coroner: But this is an important point; you ought to take precautions, seeing that it is a poison. Witness agreed with the doctors that morphia ought not to be given to infants, and was disposed to admit that the label did not give proper instructions. He also agreed that the number of drops could not be given properly.

The Coroner, in summing up, said there could be no doubt that the child had been poisoned. The question remained whether there was any criminal negligence on the part of the chemist. The preparation had been sold for many years, and, under the circumstances, he did not suppose the jury were desirous of taking an unduly severe view of the case; but it was their duty to prevent further risks of that kind to parents and children. He then alluded to the danger of administering morphine to children, and the additional risks which were run with such preparations in their having to be administered in so minute doses that even experienced men gave more than was intended. The word "Poison," as printed on the label was, he further contended, not conspicuous enough, and gave people the impression that the mixture was harmless. That was an evasion of the statute, and perhaps a technical offence had been committed, and he thought the spirit of the statute had been evaded. He was not going to put it to them that Mr.

Bagshaw was criminally negligent, although he was afraid that, as a matter of fact, his neglect was criminal. The chemist, however, was a respectable man, who, he was sure, very much regretted the accident, and he advised the jury to take a lenient view, and extract a promise from Mr. Bagshaw to have those objectionable features removed. The jury returned a verdict of death from misadventure, adding that Mr. Bagshaw should be requested to alter the label to the Coroner's satisfaction. Mr. Bagshaw promised to do as requested.

Mr. A. H. Allen on Somerset House Analysis.

Mr. A. H. Allen, F.C.S., in his latest quarterly report as public analyst to the West Riding County Council, refers to a difficulty that had arisen in connection with his analysis of samples of coffee. He had certified that certain samples contained 10 per cent. of chicory, and when the case came into court the accuracy of his certificate was challenged; but, as he had received no notice of such objection, he was not present to be cross-examined. It was stated by the defendant's solicitor that his portion of the sample had been submitted to another analyst, who had certified it to be genuine coffee. Thereupon the Magistrates directed the reserved portion of the sample to be submitted to analysis by the official referees. Mr. Allen then communicated with the analyst who had dealt with the defendant's portion of the sample, and, as a consequence, that gentleman admitted that his assistant had been mistaken, and that there was chicory present in the coffee, though perhaps not so much as 10 per cent. Mr. Allen also sent portions of his share of the sample to five other analysts, all of whom agreed as to the presence of chicory. In due course the certificate was received from the official referees, stating that the sample of coffee submitted to them was genuine, although the presence of chicory would be apparent under a microscope to any competent observer. Mr. Allen attended the adjourned hearing, together with the analysts who had agreed with him; but the Magistrates considered themselves bound by the decision of the official referees, and declined to hear further evidence. Mr. Allen criticises severely the methods adopted by the official referees, saying it is evident that agreement of their results with those of public analysts can only happen by accident. Their practice is to minimise the proportion of adulteration to the utmost possible extent, but even then they should not fail to detect such an admixture as chicory, which can be seen with facility under a microscope.

[In reference to the above, a representative of THE CHEMIST AND DRUGGIST called at the Government Laboratory to find out how the chemists there could have gone so far astray. Dr. Thorpe, the Principal of the Laboratory, was away on the Continent, but Mr. H. J. Helm, the Deputy-Principal, was interviewed. He, however, courteously explained that it was contrary to the practice of the staff to refer to adverse remarks as to the results of analyses under the Sale of Food and Drugs Act. It did not appear, however, that any doubt existed among the official chemists as to the accuracy of their report. And it may be remarked that the detection of chicory in coffee is one with which the Department is especially familiar, as before the duties were equalised the admixture was an offence under the Excise Acts, long before the passing of the Sale of Food and Drugs Act.]

Smashing Chemists' Plate-glass.

John Hunt, a carter of Birmingham, came under the kindly attention of a police-constable of that town on October 15, he being in a state of extreme intoxication. He was not tongue-tied, however, for he considerably informed the officer that he had just completed the demolition of a glass showcase in the shop of Mr. Eli Wright, chemist and druggist, Aston Road. Inquiry showed that John, though extremely drunk, did not lie, but at Aston Police Court, where he appeared on October 17, his conduct was so eccentric that the Magistrate thought it desirable that he should be examined by a doctor. He informed the Bench that he went to the chemist for some medicine, but got the wrong kind, which made his head ache and his eyes smart, and so induced the smashing of the glass case.

On October 12 a man, moved, as he subsequently explained, by the desire to get a night's lodging, divested

himself of his boots and threw them through the shop-window of Messrs. Glyn & Co., in East India Dock Road. A glass carboy holding about 10 gals. of liquid was likewise broken, and the contents of the window, which consisted of about 600 boxes of tooth-powder, were destroyed. The man was charged at the Thames Police Court, before Mr. Haden Corser on the following day, and was remanded.

Nearly a Fire.

An alarming incident took place on Monday evening at Palmer's Drug-stores, Diss. A paraffin-lamp, which was suspended from the ceiling in the middle of the shop, suddenly fell down, and it was then discovered that the rafters were on fire. Mr. Palmer picked up the lamp and threw it out of doors, where it was promptly extinguished while he was attending to the ceiling, and a serious fire was averted. Mr. Palmer's hand was slightly burned.

Coroner and the Poisons-book.

At an inquest held at Birmingham, on October 20, on the body of Ada Nellie Carrier (19), who poisoned herself with vermin-killer, Mr. Thos. Batty, chemist and druggist, Aston, said the girl called at his shop and asked for some vermin-killer to poison cockroaches. He offered her a non-poisonous article, but she insisted on having Battle's, which he supplied after she had signed the poisons-book in the usual way. The Coroner (Mr. Isaac Bradley), after examining Mr. Batty's book, said it was the best book of the kind he had seen. Instead of persons writing their names one under the other, there was a separate page for each purchaser. Mr. Batty said a further advantage was that no purchaser was by this means able to see the signature of a previous purchaser.

The "Doctor" Fraud.

At Clerkenwell Sessions, on October 19, Alfred Vigne, described as a surgeon, was charged on remand with obtaining sums of money from doctors in various parts of the country by personating their former college-chums, and writing begging-letters as from them. Prisoner pleaded guilty, and was sentenced to six months' hard labour.

Irish News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Pharmaceutical Society of Ireland.

Pharmaceutical Licence Examinations.—W. F. Knight and J. P. Morrissey passed. Three candidates have been rejected.

Business Changes.

Mr. J. W. Harvey will shortly open a pharmacy in St. George's Street, Cork.

Mr. J. B. Bolger, L.P.S.I., late senior compounder in Messrs. Graham's State Pharmacy, Westmoreland Street, Dublin, has opened a new Medical Hall in Main Street, Maryborough.

A Druggist's Bankruptcy.

A second meeting has been held in the Belfast Bankruptcy Court of the creditors of Mr. William Moss, wholesale druggist, Roe Street, Clifton Park, at which the resolution to accept the bankrupt's offer of 7s. 6d. in the pound, payable in three equal instalments, was confirmed.

Drug-contracts.

The Cork Guardians having invited the drug-trade in Ireland to tender for the supply of medicines to the Union, only one tender was received. At their meeting last week the Guardians came to the conclusion that this result was extraordinary, in view of the importance of the contract, which is, perhaps, the largest in the country, and it was decided to renew the invitation.

The Kilrush Guardians have received tenders from Messrs. O'Ryan & Co., Tipperary; Boileau & Boyd, Dublin; Harrington & Co., Cork; Hunt & Co., Dublin; and Leslie & Co., Dublin. Messrs. O'Ryan & Co. were the old contractors.

Messrs. John Clarke & Co., wholesale druggists, Belfast,

and Messrs. S. Connor & Sons, pharmacists, Newry, have been appointed contractors to the Newry Union for medicines and medical appliances respectively.

The Soother.

At Belfast last week a 14-months-old child was troublesome and wakeful. Its mother gave it "a couple of drops of 'lodlum' to quiet it." The application succeeded, unfortunately, too well; and the Coroner's jury pointed out the great danger of mothers giving their children drugs except by the doctor's directions, and hoped that vendors of such poisons would exercise a wise discrimination in selling sedatives to the public.

Surcharges for Parish Medicines.

The Local Government Board have informed the Rathkeale Guardians that in respect to certain medicines irregularly supplied the Board, in view of the medical officer's report, will not press the surcharges in question, but caution the medical officer that in future, except in very grave circumstances, he should not order medicines or other appliances direct from the contractors. The Guardians, however, are not disposed to take their rebuke lying down. They have replied to the L.G.B. that they are of opinion that no medicines of an extraordinary nature have been ordered except of an immediately urgent nature, that there is no valid reason for the surcharge referred to, and they therefore request that the record against them be forthwith cancelled.

Laughing-gas not a Laughing Matter.

In the Recorder's Court, Dublin, last week, a man named Moran appealed from a Magistrate's decision convicting him of having been found drunk. Evidence was given that the appellant was seized with a frightful toothache. He first went to some American dentists, who dragged him about for a considerable time, and then told him they could not remove the tooth. Next he went to Dr. Merrin, pharmaceutical chemist, Camden Street, who sent him to a Mr. Birmingham, dentist, who gave him a dose of laughing-gas and took out the tooth. Moran was arrested by the police a few minutes after leaving the dentist's house, and charged with being intoxicated. The Recorder characterised the arrest as scandalous and illegal, even if the appellant had been drunk. It was a monstrous thing that a respectable man should be thrust into a cell in his agony of pain, and the refusal by the police to bring a doctor at appellant's request made matters worse. He quashed the Magistrate's conviction, severely reprimanded the police, and expressed his deep sympathy with the appellant, who was a badly-used man.

Scotch News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

The Wrong Powder.

On October 17 a Dundee woman took two teaspoonfuls of Keating's powder in mistake for her medicine. She went to the infirmary immediately after discovering her mistake, and was successfully treated.

The Apprentice a "Rara Avis."

There is a great dearth of him in Edinburgh. There are vacancies for him in about fifty good pharmacies, and old-established firms have been looking for him for months. Chemists with sons (and heirs) are finding that the lads consider the hours too long and the prospect not so inviting as "something in an office." Even the dazzling insignia "M.P.S."—already emblazoned in letters of gold, or painted in red, in places where erstwhile it was not—does not seem to tempt him.

PLUMBAGO-MINING is developing almost into a mania in Ceylon, near Galle. Everyone who has a patch of land is digging for the stuff.

French News.

(From our Paris Correspondent.)

CHEMICAL EXPORTS.—The returns for the first eight months of the year show that France has exported chemical products to Great Britain amounting to 9,407,000f., against 9,655,000f. in the same period last year.

IMPURITIES OF CALCIUM CARBIDE.—M. Moissan has reported to the Academy of Sciences his experiments on samples of calcium carbide manufactured in France. He considers that sufficient care is not taken in the industry. He finds silicium, sulphur, phosphorus, and graphite as the most usual impurities, and the acetylene produced from some of these samples, he finds, contains phosphoretted hydrogen. He says the manufacturers should be careful to assure themselves of the purity of the lime and charcoal which they employ.

PARIS SOCIETY OF PHARMACY.—At the October meeting of the Society a letter of thanks was read from Mr. Charles Rice, of New York, on the occasion of his election as a corresponding member of the Society. Mr. Rice also sent a copy of the first part of his "Study and Criticism of the U.S. Pharmacopœia." M. Guichard presented two supplements, letters F and G, of his "Dictionnaire de Chimie Industrielle," and the death of M. Schleisner, of Copenhagen, a corresponding member of the Society, was announced. M. Crinon read a paper on the preparation of ovules and suppositories with glycerin solidified by gelatin.

OBITUARY.—M. François Gay, professor at the Montpellier Superior School of Pharmacy, died on September 29 at Bagrères-de-Bigorre, the Pyrenean health-resort, from infectious pneumonia, at 41 years of age. His industry as a scientist would probably have assured him a place of honour in the ranks of French pharmacy. He was scientific editor of the *Bulletin du Sud Est*. Without overstepping the reserve necessarily imposed upon a professor paid by the State, he took a warm interest in local schemes for diminishing the evils of "cutting" pharmacy and improving the status of the modern pharmacies. Besides his scientific articles, he wrote a curious little book, "Une lignée d'Apothécaires Montpellierain," in which he traced the history of the Catalans, who practised their art at Montpellier from 1552 to 1647. This pamphlet he read as an address at the opening of the scholastic year at Montpellier University three years ago. M. Gay was nominated professor of pharmacy at Montpellier in 1893, succeeding L. Soubeiran. His grandfather, J. Gay, and his father, H. Gay, had held the same professorship before him. Dr. J. M. Vincent Prendergast, a well-known English physician practising in Paris, died on October 19. Dr. Prendergast is reported to have amassed a considerable fortune.

PHOTOGRAPHY FOR THE MILLION.—M. Francisque Sarcey, the well-known dramatic critic, created something approaching a sensation amongst devotees of photography last week by announcing that a friend of his is at present taking photographs without using a lens and by the simple aid of an apparatus which anyone can make for five pence. It is also claimed that by this new process photographs of buildings can be taken when standing quite near. The apparatus is referred to as "a simple cardboard box with a hole in it pierced by a needle," and the inventor is said to be M. Colson, a professor of physics at the Paris Ecole Polytechnique. The public is promised shortly a description of the process, giving all the necessary details. It is suggested that the invention is based on intricate mathematical calculations, which are to be simplified for general use, so that any amateur will be able to adopt it. The object of the calculations is apparently to determine the diameter of the hole to be made in the apparatus, so as to ascertain the distance at which the sensitive plate must be placed from the hole in order to get the maximum clearness of the object to be photographed under all possible conditions. [This nice scientific way of telling us what a pinhole-camera is, is its only claim for printing what most photographers know. Perhaps someone will tell M. Sarcey that; he is! several decades too late.—Ed C & D]

COMPETITION FROM THE BAKERS.—Pharmaciens frequently complain of the *marchands de vin* and *cafés* who retail so called medicated wines and similar preparations. Their next complaint will probably be against the bakers. A handbill was thrust into my hand on the Boulevard Malesherbes a few days ago, advertising a *boulangerie* in that thoroughfare where "medico-hygienic peptonised bread" can be purchased. The "dose" is stated at 7 to 10 oz. per diem, and the bread contains phosphate of lime, iodide of calcium, kola, coca, and guarana. It is claimed to be much more effectual than medicated wines, and is recommended for tuberculosis, anemia, chlorosis, and all constitutional weaknesses. "Tried with success in the hospitals," it can be bought in the form of biscuits, buns, bread, or pastry. A sample box is offered for 50c. The medical formula and the trade-mark have, we are told, been "deposited at the Tribunal of Commerce and the Faculty of Medicine by an M.D. of the Paris University." The profits from the bread are to be devoted to charitable objects, and especially to the distribution of bread to tuberculous patients of the Parisian suburbs.—Since writing the above I am informed that the Syndicate of Pharmacists of Paris have decided to denounce the baker to the Paris Prefecture of Police, who, it is hoped, will prosecute.

MEDICINE AND PHARMACY ON THE BATTLEFIELD.—An interesting experiment was conducted last week in one of the suburbs of Paris by General Zurlinden, Military Governor of the City. The occasion was a series of trials and manoeuvres of the French Army Ambulance Corps, in which both the medical and pharmaceutical sections were put to a somewhat severe test. The ambulance arrangements were supposed to be divided into four sections: First Aid posts, divisionary ambulances, campaign-hospitals, and the main hospitals. The experiments were connected principally with the First Aid posts, they being considered the most important, much depending on soldiers who are seriously wounded receiving the earliest possible attention. After some sham firing, about seventy soldiers were, according to arrangement, placed *hors de combat*. They were taken from the field of battle on stretchers, and, after being summarily treated at the First Aid posts, were conveyed in special vehicles to the divisionary ambulances, and then to the hospitals. Both army surgeons and military pharmacists discharged their duties efficiently at these manoeuvres, and received the compliments of the commanding officers. Similar trials have been made at Marseilles and elsewhere.

Colonial and Foreign News.

ANTITOXIN IN U.S.A.—The Chief of the Agricultural Department at Washington has decided that the method of manufacturing diphtheria-antitoxin employed by the department does not infringe the Behring patent, and he testifies that Messrs. Parke, Davis & Co.'s method also differs. Both the department and the firm await the action of the owners of the patent, and go on producing the serum.

TRINIDAD TARIFF.—The following among other changes have been made in the Customs duties levied on imports into Trinidad:—Medicinal spirituous preparations, 5s. per gallon; perfumed spirits, 15s.; all other spirits, liqueurs, cordials, and spirituous preparations (including naphtha or methyl alcohol purified so as to be potable), not exceeding the strength of proof, 10s. 6d. per gallon, and in addition for every degree of strength above proof 1d. per gallon.

RUSSIAN WEIGHTS AND MEASURES.—The Finance Minister, who has been considering the advisability of introducing metric weights and measures into the Empire, has come to a decision by making the system optional and revising the old weights and measures to some extent. He has also provided for the gradual establishment of standards offices, where weights and measures may be verified, and a beginning with these is to be made in the larger towns and cities.

PEARL'S SOAP.—Mr. Otto Fuerst, of Hamburg, importer of British drugs and specialties, gives us particulars of a soap made in Germany and sold as Pearl's soap, with

printing and wrapper very similar to the English soap which it was apparently intended to imitate. The soap was sold at 25pf., equal to 3d. per piece. It was not only sold in Germany, but was also apparently intended for export, as it bore on the back the mark, "Made in Germany." Mr. Fuerst gave notice of the imitation to Messrs. Pears (Limited), who promptly sent a representative to Hamburg, and the matter is now in the hands of the Public Prosecutor.

CARBONATE OF POTASH IN SMYRNA.—The annual importation of carbonate of potash to Smyrna, according to a French consular report, is about 8,000 barrels of 100 kilos. each. The importers make their purchases in April and May, in order to receive the goods at the beginning of July at latest. Two-thirds of the quantity imported is supplied by Austria; then follows Italy, Germany, and France. The quality preferred is the bluish potash, called "Tuscan," containing a minimum of 60 to 70 per cent. carbonate of potash and a maximum of 10 per cent. carbonate of soda. The prices realised this year were 33f. net per 100 kilos. by the Austrian firms, and 31f. to 32f. for potash from other sources.

THE MERCHANDISE MARKS ACT IN INDIA is being badly infringed, according to the annual report of the Customs. The tricks and shifts of the trade are fairly exemplified in the following cases in which the drug-trade is interested. The bottles in a consignment of three cases of lavender-water of Austrian manufacture were moulded with the word "Lavender" without indication of the country of origin. The goods were confiscated and a fine of 10r. levied for importation, but were permitted to be redeemed on payment of a further penalty of 5r. and reshipped. In a second case the bottles in a consignment of quinine were labelled "1 oz. quinine sulphate unbleached." The chemical examiner reported that the article contained over 37 per cent. of other cinchona alkaloids. The case with its contents was confiscated, and the importers were fined 10r. for the importation. Here, again, redemption was permitted for 5r., and the goods were reshipped to Hamburg. A third case dealt with a consignment of adulterated turpentine (so declared by invoice), but the drums were stencilled "Turpentine." The goods were confiscated and the importer fined 50r. The drums were subsequently released under a redemption penalty, the word "adulterated" being added.

CUTTING IN THE UNITED STATES.—Before the National Association of Retail Druggists has had time to organise some other men out West have gathered together, taken a leaf out of Mr. Glyn-Jones's book, and formed a National Retail Druggists' Congress. This happened at Omaha last month, after the meeting of the Nebraska Pharmaceutical Association, when a proposal was brought forward to found the Congress, the proposers thinking that the N.A.R.D. is to play into the hands of the proprietors of proprietaries. They at the outset adopted a resolution, the tenour of which may be judged from the last clause, to wit:—

We urge all druggists of the United States not to distribute advertising matter, and in every possible way to discourage the sale of all proprietary goods that do not yield a reasonable profit to the retailer.

This done, the work of organisation was set about, constitution and by-laws being duly forthcoming, and these set forth that "the aim of the Congress is to unite all the retail druggists of the United States in the adoption of correct and uniform business methods, for mutual assistance, encouragement, and improvement, to develop commercial talent, to elevate the standard of commercial thought, to vigorously combat all legislation inimical to and to favour all legislation friendly to their interests, and to in every way in their power protect and promote the interests of the retail druggists of the United States." The meeting appointed Mr. N. A. Kuhn, of Omaha, the first President; the Presidents of the State Pharmaceutical Associations were elected Vice-Presidents; and Mr. N. J. Bentley, Oskaloosa, was appointed Secretary. This movement gives us on this side an idea of the temper of American druggists at the present time; but it does not look hopeful for uniformity that as soon as one proposal for betterment (the N.A.R.D.) is set agoing, another should be sprung upon the nation from Nebraska. It is the shooting State, though, if we are not mistaken, and that may account for it.

Proprietary Articles Trade Association.

PROPOSED DEFENCE FUND.

AT a meeting of the Executive Committee of the P.A.T.A., held on October 12, the suggested scheme for a Defence Fund, which had been drafted by a sub-committee consisting of the London retail members of the Association, was considered. With some slight modifications it was decided to approve of the scheme as a draft to be sent to the local Associations for approval or amendment. The Association in no way pledges itself, however, to adopt this or any scheme.

In order that the fund should be successfully established it would be necessary that a reserve of at least 1,000l. should be raised. It is suggested that this be done by the formation of a company with 1l. shares, payable 5s. on application, the remainder to be called up if occasion arises.

Having secured a sufficient reserve, the committee consider that an additional subscription of 10s. 6d. per shop be paid by members of the Association, if they desire to benefit by the Defence Fund, and that this should entitle them to legal defence to an amount not exceeding 10l. when prosecuted under any of the following trade Acts, and any others which may be added at the discretion of the governing body:—

- Apothecaries Act (1815)
- Dentists Act (1878)
- Veterinary Surgeons Act (1881)
- Sale of Food and Drugs Act (1875 and 1879)
- Weights and Measures Acts (1878 and 1889)
- Petroleum Acts (1871 and 1879)
- Explosives Acts
- Shop Hours Act (1892)
- Excise laws affecting the trade.

Non-members of the Proprietary Articles Trade Association should be required to pay a subscription of 1l. 1s. per shop.

That it be clearly understood that any subscriber to the fund be entitled to the costs of his defence up to the amount of 10l., whether guilty or not, but that the Association, in the event of a conviction, would not pay any fine incurred, nor costs of prosecution, the Association simply guaranteeing the best possible defence.

That members should be able to obtain legal advice on any trade matter from the Association's solicitor, through the secretary.

That members be indemnified to the amount of 500l. against any mistake occurring in any shop for which a subscription has been paid, in dispensing or retailing, by which a customer suffers damage.

That in the event of a retail member being mulcted in damages in a case in which a wholesale house or third party is responsible, the member be only indemnified against actual loss, not exceeding 500l., after deducting the amount he may recover, or which the Association may recover for him, from such third party.

Wholesale and manufacturing firms who have held a hundred 1l. shares for six months prior to the date of the accident be indemnified to the extent of 500l. in the event of an accident occurring in a retail member's shop, which accident was due to a mistake, for which they were responsible.

That an arrangement be made for a graduated scale in the event of manufacturing or wholesale houses desiring to take less than 100 shares.

The Defence Fund would in no way be connected with the funds of the P.A.T.A. It should be governed by a council consisting of the ten retail members of the P.A.T.A. Council for the time being, together with ten persons elected by the shareholders, each share to carry one vote.

The Council to reserve to itself the right of appealing upon any case where they think the interests of the trade demand it.

The Council to have the right to refuse to accept any member's subscription.

That the retail membership to the Defence Fund be only open to *bona-fide* chemists.

OPENED PACKETS OF PROPRIETARY ARTICLES.

The meeting also decided to issue a public notice for exhibition and distribution by the members, warning the public not to take goods which were being tampered with, as it was found that various firms were breaking open packages and selling them in a disreputable condition.

Legal Reports.

The Pharmacy Act.

UNQUALIFIED RETAILER OF POISONS.

AT the Whitechapel County Court, on October 12, Martin A. G. Kahle, of 127 Leman Street, E., was sued by the Pharmaceutical Society for two offences under the Pharmacy Act.

Mr. Grey, for the prosecution, said the penalties claimed (5*l.* for each offence) were for keeping open shop and for using the title of "chemist," defendant not being registered.

J. Partridge stated that, acting on instructions from the plaintiff Society, he had purchased twopennyworth of laudanum and twopennyworth of soap-liniment from the shop at 127 Leman Street on July 23. The name over the door was H. W. Langbeck, but the shopman referred to defendant, before selling the laudanum, as to the quantity to be supplied.

A certificate of death was put in showing that H. W. Langbeck died at the German Hospital on March 6, and further evidence was given of an interview between the defendant and one of the Society's officials at the Society's office, at which defendant volunteered the statement that the business had been left to him, and he had been up three times (the last time this month) for his examination, but failed to pass.

Mr. May, for the defence, said the business was being carried on by the executor of Mr. Langbeck, who employed a duly qualified assistant. He called the executor, who stated that there had been an arrangement between Kahle and Langbeck whereby Kahle conducted the business and paid Langbeck 40*l.* a year out of the profits. This agreement ended with the death of Langbeck, and the business was sold to Kahle on July 26.

Mr. J. Vine, a registered chemist, gave evidence of the sale, and Mr. May submitted that the executor was in possession when the purchase was made, and the sale was conducted by a duly qualified man.

Judge Bacon said he was satisfied that defendant was carrying on the business for his own profit, and that he had incurred a penalty for keeping open shop. He had doubts as to the other penalty, but, although the title was used in conjunction with the name of Langbeck, he thought it came within the statute, and gave judgment for the plaintiffs for the two penalties, with costs.

The Pharmacy Act, Ireland.

A PROSECUTION WITHDRAWN.

ON October 14, in the Southern Police Court, Dublin, before Mr. Swift, the Pharmaceutical Society of Ireland sued Emma Barnes, of 1 Charlemont Street, Dublin, under the Pharmacy Act, on three different counts. The first was for having on September 13 last kept open shop for retailing and dispensing poisons without being qualified to do so. The second was for having on the same date sold a poison—viz., opium—in a medical prescription to Andrew Downing. The third summons was for having on September 14 compounded a medical prescription for Andrew Downing.

Mr. R. K. Clay appeared on behalf of the Society, and Mr. O'Shaughnessy, Q.C., represented the defendant.

Mr. Clay said the case would be greatly shortened as it appeared that the defendant (who had been previously fined in that court) had sold her interest in the shop known as Atkinson's. Mr. C. B. Vance, 1 Charlemont Street, a licentiate of the Society, then gave evidence, and in answer to Mr. Clay stated that under an agreement of September 1, 1895, he paid rent for the premises to the defendant. The rent was 100*l.* a year. Witness said he was himself qualified since he entered into the agreement, and he employed a fully qualified licentiate of the Pharmaceutical Society.

Mr. Clay said that under the circumstances the Society would withdraw the summons.

Mr. Swift: What about costs?

Mr. O'Shaughnessy: I would be satisfied if you dismiss the case without costs. Mr. Clay has met the case very fairly.

The summons was then dismissed without costs.

DECISION DEFERRED.

AT the Cork Police Court, last week, Messrs. T. Waters & Sons (Limited), of Winthrop Street, Cork, were prosecuted by the Pharmaceutical Society for that they did use the title of "dispensing chemists," not being registered under the Pharmacy (Ireland) Act, 1875, and did keep open shop for retailing poisons within the meaning of the Act, not being registered as "pharmaceutical chemists" under said Act.

Mr. Arthur Julian, solicitor, having shortly stated the facts as set forth in the summons,

Mr. Samuel Johnson, ex-sergeant R.I.C., gave evidence of having gone to the defendants' establishment and purchased therein a package of oxalic acid.

Mr. George Lawrence, B.L., who appeared for the defendants, held that the Act under which the prosecution proceeded did not apply to the defendants in the present instance. Though the name of the company did not appear on the list of the Pharmaceutical Society, they had in their establishment a person—Mr. E. T. Elmes, of Londonderry—who was qualified under both the British and Irish Acts to dispense poisons, and to trade under the title the firm had assumed. Counsel quoted from a decision of the House of Lords in support of his contention that the defendants, being a limited-liability company, did not come within the meaning of the Act under which the prosecution proceeded. The Act provided a penalty on "a person," and therefore the defendants, being a limited-liability company, could not be a "person" in the interpretation of the Act.

Mr. Edward T. Elmes deposed that he was employed by Messrs. Waters (Limited) at Cork. He was a qualified chemist and druggist, and his name appeared on the register of the Pharmaceutical Society. Witness had come to Cork from Londonderry. While employed in the northern city his name was put on the register.

To Mr. Julian: He was the only chemist employed by the defendants, and, as far as he knew, none of the members of the firm were qualified chemists.

Mr. Julian: But on the windows of the establishment, and also on the labels used by the firm, the words "Chemists and Druggists" appear?

Witness: Yes.

Mr. Julian: Tell me who sells the poisons and drugs in your absence?

Witness: I am absent for only one hour during the day—the dinner-hour—and in the meantime no poison is sold.

This concluded the evidence.

Mr. Mayne, R.M., said he would defer judgment in the case for a few days.

Sale of Food and Drugs Act.

LIME-WATER.

AT Swindon Police Court, on October 17, Mr. Jesse Boot, managing director of Boots (Limited), and Henry Jones, local manager of the company's branch shop at Swindon, were summoned for selling lime-water which was not of the nature and quality demanded, on August 10 last. The case had stood adjourned for two months by arrangement between the solicitors representing the parties. Mr. Harry Bevir, solicitor, of Swindon, now appeared to prosecute for the Wilts County Council; and Mr. A. M. Wilson, of Sheffield, was for the defence.

Mr. Bevir, in opening, said the proceedings were taken in reference to a sample of lime-water purchased by Inspector Sam Smith at defendant's shop in Swindon, and which sample contained lime in the proportion of $\frac{1}{4}$ gr. to 10 fl. oz. of water; it should have contained 5 gr. Having learned that the deficiency was due to the alleged carelessness of the manager's assistant at Swindon, he (Mr. Bevir) wished to withdraw the charge against the company on the payment of costs, and to proceed against the defendant Jones only.

Mr. Wilson said he wished to explain how the error had occurred. These proceedings were taken in the interests of fair and honest trading, and so long as no allegation otherwise was preferred against his clients, as a limited company, they were satisfied. The general instructions of the company to the various branch shops were that all articles sold should be supplied in the first instance direct from Nottingham. Lime-water, however, was an exception, as being so

cheap an article it would not pay the company to send it. The lime-water was therefore made at the local branch. In referring to the deficiency in the present case, Mr. Wilson pointed out that in one pennyworth of lime-water there were 480 gr. of lime. Therefore, if in this case the lime was 4 gr. short, the fraud amounted to the $\frac{1}{120}$ part of a penny. The assistant had not shaken up the bottle containing the same, or the portion purchased would have been of the proper quality.

Henry Jones, the manager of the Swindon branch, was sworn, and said the lime-water in question was made at Swindon, and the reason the small portion purchased by the inspector was not strong enough was because the assistant who had made it had not sufficiently shaken the bottle from which it was taken.

The Magistrates retired for consultation, and on returning said they would allow the withdrawal of the case against the company, but they would convict and fine the manager Jones 2*l.* 16*s.* 6*d.*, to include costs; the company would have to pay 1*l.* 6*s.* costs on the withdrawal of the summons against them.

The Factory Act.

On October 14, Messrs. W. Robinson & Co., chemical-manufacturers, Clayton, Manchester, were fined 40*s.* and costs by the Manchester City Magistrates, for neglecting to report to the inspector of factories and the certifying surgeon an accident which occurred at their works in August last, through a still boiling over.

Brokers' Liabilities.

In the Lord Mayor's Court on Friday, before the Common Serjeant (Sir F. Fulton, Q.C.) and a jury, Messrs. Nicholl & Knight sued Messrs. Walker & Batto, brokers, for 17*l.* 10*s.* 2*d.*, money due on an account stated, and for interest. Mr. Alfred Holiday, cashier to the plaintiffs, said that on October 13 last his firm entered into a contract to purchase a large quantity of linseed through the defendants, who were his brokers. On January 6 last his firm sent the defendants a cheque for £00*l.* in payment of what was due under the contract. When the actual weights of the linseed delivered came to be attested it was found that the amount paid was in excess of the money due. He received on February 19 last an invoice from the defendants showing that there was at his firm's credit a sum of 17*l.* 1*s.* 7*d.* That was the sum now claimed, with 5 per cent. interest. There had been frequent applications for payment; the defendants admitted the debt, but would not pay. They had asked for time. There was no appearance on behalf of the defendants, and a verdict was returned for the plaintiffs for the amount claimed, 17*l.* 10*s.* 2*d.*

Dealing in Homocœa Shares.

BEFORE Mr. Justice Channell, sitting as Vacation Judge, on Wednesday, Mr. Rowden mentioned the case of Bowden v. The Homocœa Company (Limited), this being a motion to restrain dealing with shares. It had been agreed that the defendant company should undertake to put 10,000 shares in a joint-bank account to await the issue of the trial, and an order would be taken on those terms. His Lordship made an order accordingly.

Patent-food Dispute.

"NEVER BELIEVE ANYBODY."

In the City of London Court, on Wednesday, Mr. Commissioner Kerr disposed of the case of Buchanan v. Adams, which was briefly referred to last week. The plaintiffs, Buchanan, Sons & Foster (Limited), Scotch-food manufacturers, sought to recover 10*l.* 3*s.* 3*d.* for patent Scotch-food supplied to the defendant, Mr. H. Adams, 375 High Road, Chiswick. When the case was before the Court last week the order was produced, but the defendant disputed it, and the case was adjourned for the attendance of the plaintiffs' traveller.

Mr. Joseph Maxwell, the traveller in question, said he

called on the defendant in the ordinary way of business, and asked for an order for infants' patent food. The defendant asked to see a price-list, and he showed him one. Then he gave the order now produced in his own handwriting.

Mr. Commissioner Kerr said he remembered that the defendant, on the previous occasion, alleged that the order was obtained by false representations. It was for him now to make that out.

The defendant said the traveller told him that the principal hospitals had taken up the article, and that one of his customers was making 3*l.* or 4*l.* per week out of it. The firm, the traveller went on to tell him, would not allow any stores or grocers to take up the food, unless they paid 1*l.* a ton extra. When the food arrived the carriage was unpaid, which he thought was a very uncommon thing. He tried to act fairly with the plaintiffs, but the firm would not meet him. Then he returned the food, but the plaintiffs would not take it in.

Mr. Commissioner Kerr: But you had bought the goods, Defendant: They are unsaleable and useless. Plaintiffs' counsel said the defendant had written a letter to the plaintiffs which, he submitted, put him out of court. Mr. Commissioner Kerr, having read the letter, said the defendant had no business to defend the action after writing such a note. His advice was, "Never believe anything you are told." If the defendant remembered that, and then believed only one half of what he saw, it would be the better for him. Judgment was given for the plaintiffs for the sum claimed, with costs.

Bankruptcy Report.

Re CHARLES ELLIS WOOD, lately in business at Clifton, and now residing at Brighouse, Chemist and Druggist.

THIS debtor was examined at Halifax Bankruptcy Court on October 11, before Mr. R. M. Stansfeld, Registrar. The debtor stated that when the receiving order was made he was in prison at Aimsley for debt, but was released on being made a bankrupt. He sold his business at Clifton three years ago, but a dispute arose in connection with the sale, and an action at law ensued, by which he recovered 30*l.*, but had to pay his own costs. After that he went into business as an ironfounder. He knew scarcely anything of this business but took it over with the intention of recovering some money he had lent the firm. The sum lent was 400*l.*, and he remained in the business until July, 1897, when he formed it into a limited-liability company. His own interest in the company was 400 *l.* shares, but he had to take over the liabilities and book-debts, which amounted to about 286*l.* The examination was adjourned to allow the debtor to file certain accounts relating to the sale of the business to the company.

Gazette.

PARTNERSHIPS DISSOLVED.

Bennett, H., and Cooke, T. G., under the style of Bennett & Cooke, Rochdale, mineral-water manufacturers.

Hince, A., and Thomas, J., under the style of the Stretton Hills Mineral-water Company, Church Stretton, Salop, mineral-water manufacturers.

Waters, J. H., and Kemp, J. R., under the style of Waters & Kemp, Jernyn Street, St. James's, S.W., physicians and surgeons.

THE BANKRUPTCY ACTS, 1883 AND 1890.

RECEIVING ORDERS.

Brodie, William Breadie, Farnworth, near Bolton, surgeon.

Fox, James Armitage, Macclesfield, soap-manufacturer.

ADJUDICATIONS.

Carleton, John Shaw, Newnham, Gloucestershire, medical practitioner.

Cook, Henry Samuel, Birmingham, doctor of medicine.

Fox, James Armitage, Macclesfield, soap manufacturer.

Tucker, Francis, late Falcon Road, Battersea, S.W., chemist.

Deeds of Arrangement.

Bennett, Harry, 13 St. Albans Street, and **Thomas Gilbert Cooke**, 4 Crossfield Place, and trading at Young Street, Oldham Road—all Rochdale—as "Bennett & Cooke," mineral-water manufacturers. Trustee, William Hoyle, Drake Street, Rochdale, accountant. Dated, October 5; filed, October 12. Liabilities unsecured, 187l. 6s.; estimated net assets, £54. Separate estate of H. Bennett: Liabilities unsecured, 148l.; estimated net assets, 20l. Separate estate of T. G. Cooke: Liabilities unsecured, 135l.; estimated net assets, 5l. The following are scheduled as creditors:—

	£	s.	d.
Borrow, C., & Co., Newton-le-Willows	33	0	0
Broadley, J., Accrington	18	0	0
Cooper Brothers, Manchester	12	0	0
Gartside, B., Rochdale	17	0	0

Separate Estate of Harry Bennett.

Bowden, E., Stockport	15	0	0
Cook, H., Rochdale	721	0	0

Separate Estate of Thomas G. Cooke.

Cook, F., Sarab, Rochdale	135	0	0
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McKeown, Patrick J., Toomebridge, Antrim, druggist and general merchant. Dated, October 12; filed, October 14. Liabilities unsecured, 650l.; estimated net assets, 260l. Petition for arrangement, and affidavit of assets and liabilities. The following are scheduled as creditors:—

	£	s.	d.
Allen, James, & Co., Belfast	17	16	2
Birney, E., Belfast	55	0	0
Clarke, John, & Co., Belfast	18	6	10
Craig, Daniel, Toomebridge	30	0	0
Irish Distillery, Belfast	30	0	0
McKeown Felix, Toomebridge	100	0	0
Murray, Sons & Co., Belfast	14	4	0
Neill, Abraham, Belfast	21	12	8
Pratt & Montgomery, Belfast	23	3	7
Savery & Murphy, Belfast	12	0	0
Shaw & McMullan, Belfast	39	0	0
Smith, G., & Co., Dublin	11	16	5
Taylor, W. & M., Dublin	23	13	4

New Companies & Company News.

DAYBROOK SOAP COMPANY (LIMITED).—Capital 20,000l., in 10l. shares. Objects: To acquire the business carried on as "The Daybrook Soap Company," at Daybrook, Nottingham, and to manufacture, sell, and deal in soap, glycerin, candles, drysalteries, oils, colours, varnishes, &c.

UNITED OIL AND COLOUR COMPANY (LIMITED).—Capital 10,000l., in 1l. shares (5,000 6l. per cent. cumulative preference). Objects: To acquire the business of The Well Street Oil Works (Limited), and to manufacture, sell and deal in oils, colours, white lead, tea lead, tin foil, tin, antimony, varnishes, turpentine, petroleum, chemicals, &c.

CRAIG, MILLS & Co. (LIMITED).—Capital 170,000l., in 1l. shares (90,000 6l. per cent. cumulative preference). Objects: To adopt an agreement with Frederick Moore, and to carry on business as fishmongers, restaurateurs, licensed victuallers, wine merchants, chemical manufacturers, analytical, manufacturing and general chemists, druggists, patent medicine vendors, &c.

THOMAS CROSSLEY & Co. (LIMITED).—Capital 30,000l., in 1l. shares. Objects: To acquire the business carried on by John E. Crossley, at the Victoria Ware Mills, Sovereign Street, Leeds, and to carry on the business of general drysalteries, dyewood and tanning-material importers, tanning-extract manufacturers, chemical-manufacturers, &c. John E. Crossley is the sole director. Registered office, Victoria Ware Mills, Sovereign Street, Leeds.

ALFRED ALLCHIN (LIMITED).—Capital 4,000l., in 1l. shares. Objects: To acquire the business of pharmaceutical and homœopathic chemists carried on at 55 England's Lane,

Hampstead, London, as "Alfred Allchin," to adopt an agreement with Sidney Allchin, and to carry on the business of pharmaceutical, homœopathic, and analytical chemists, mineral-water manufacturers, perfumers, essential-oil importers, drysalteries, dye and soap manufacturers, druggists' sundriesmen, &c. The first subscribers (each with one share) are:—Geo. W. Watts, Alfred Hornby, Arthur Brunyee, and Thomas W. Leake, all pharmaceutical chemists, of 55 England's Lane, Hampstead, N.W.; Sam. A. Remfry, 4 Loampit Hill, Lewisham, pharmaceutical chemist; Robert J. MacDermott, 13 Rowland's Road, Worthing, pharmaceutical chemist; John C. McCorquodale, Markinch, N.B., chemist and druggist. The subscribers are to fix the number of the directors and to nominate the first. Remuneration, as decided by the company. Registered office, 55 England's Lane, Haverstock Hill, London, N.W.

JOHNSON & HOOPER (LIMITED).—Capital 30,000l., in 10l. shares. Objects: To acquire the business of manufacturing, pharmaceutical, and analytical chemists carried on by James E. Johnson-Johnson and James Hooper, at Marsh Gate Lane, Stratford, London, as "Johnson & Hooper," and to carry on the said business and that of brimstone-refiners, distillers, acid-manufacturers, wholesale and retail chemists and druggists, patent-medicine manufacturers, medical herbalists, drysalteries, &c. The first subscribers (each with one share) are:—A. F. Gates, manager; James Hooper, manufacturing chemist; J. E. J. Johnson, manufacturing chemist; and H. Jordison, manufacturing chemist—all of Crown Chemical-works, Marsh Gate Lane, Stratford; Frank Johnson, gentleman; and W. J. Ling, manager—both of Crown Wharf, Dace Road, Old Ford, E.; Frank B. Johnson, 66 Mount Road, Hastings, gentleman. The first directors are James E. Johnson-Johnson (chairman and managing director) and James Hooper. Qualification, 250l. Registered office, Crown Chemical-works, Marsh Gate Lane, Stratford, Essex.

EDWARD COOK & Co. (LIMITED).—Capital 200,000l., in 10l. shares (10,000 5l. per cent. cumulative preference). Objects: To enter into an agreement to be made between Henry J. Cook, Wm. Cook, and Thomas A. Cook of the first part, Samuel Hall of the second part, and the company of the third part, and to acquire and carry on the business of soap-makers, bone-merchants, manure manufacturers and dealers, tallow-melters, and bleachers of palm oil carried on by Henry J. Cook, William Cook, and Thomas A. Cook. The first subscribers (each with one share) are:—H. J. Cook, soap manufacturer; William Cook, scap-maker; Thomas A. Cook, soap-maker; Samuel Hall, soap-maker; Edmund M. Cook, melter; William M. Cook, soap-maker; and Samuel G. Hall, soap-maker—all of the East London Soapworks, Bow, E. The first directors are Henry J. Cook, William Cook, Thomas A. Cook, Samuel Hall (managing directors), and Edmund M. Cook (manager of the tallow-melting department). Qualification of ordinary directors, 6,000l.; of departmental directors, 3,000l. Remuneration as the company may decide. Registered office, East London Soapworks, Bow, London, E.

SOUTHALL BROTHERS & BARCLAY (LIMITED).—The statutory meeting of this company was held on October 18, at the company's offices, Lower Priory, Birmingham. Mr. Thomas Barclay presided, and stated that the business had been transferred to the company in due form, and that an application had been made to the Stock Exchange for a settlement. The called-up shares had been fully subscribed, and for 46,657 shares they had to allot there were 168,807 applications. They had taken care, as far as possible, to allocate the shares amongst their customers, and the heads of departments and the principal travellers were also interested in the business. It was proposed to pay interest on the shares half-yearly, on January 1 and July 1, and interest for the first half-year would date from July 21 last. The business had been established for nearly eighty years, it had been one of steady growth, and it continued with the same direction. The whole of the former partners were directors of the company, so that the business would continue to be conducted on the old lines. There was no business to transact, and on the motion of Mr. J. K. Andrews, Astwood Bank, seconded by Mr. G. White, Dudley, Mr. Barclay was thanked for presiding.

Personalities.

MR. SAMBORNE COOK, chemist, Nottingham, is a candidate for the City Council at the November elections.

MR. HENRY C. JENKINS, F.C.S., A.R.C.Sc., A.M.Inst.C.E., has been appointed metallurgist to the colony of Victoria, and leaves for Melbourne shortly.

MR. D. ST. JOHN ROBB is going to India to take up the representation of Messrs. Horner & Son, of London, and other firms recently held by Mr. Prebble.

MR. E. T. PALMER, Aylesbury, calls our attention to the fact that his name was inadvertently printed as "Parker" in our last week's report of wine-licences granted.

MR. JOHN J. EVANS, of Liverpool, was on 'Change in London on Tuesday, and was so heartily greeted that he must have had difficulty in getting business done. Mr. Evans is to be in London for a few weeks.

MR. P. T. DIXON, of the firm of C. E. Gardner & Co., wholesale chemists, Port Elizabeth, South Africa, has arrived in London on a business trip. Any communication for him may be addressed c/o Messrs. W. Kelmsley & Co., 44 Leadenhall Street, E.C.

MR. DENCER WHITTLES, L.D.S., R.C.S., has been appointed dental surgeon to the General Hospital, Birmingham. Mr. Whittles was formerly demonstrator in practical pharmacy, and subsequently succeeded Mr. Barclay as lecturer on materia medica at the Mason University College, Birmingham.

MR. THOMAS WHITTAKER, who was for many years in business as a chemist and druggist at Ardwick, Manchester, and whose sudden death we reported a few weeks ago, has left a legacy to the Ancoats Hospital of about 3,000*l*. This was made known at the annual meeting of the Ancoats Hospital on Monday by letter from the solicitors of the deceased.

LONDON newspapers have just discovered that Colonel Clifford Probyn, L.C.C., the new Sheriff of the City, is an aerated-water manufacturer (Hooper, Struve & Co., Limited), and as Sheriff Dewar, whom he succeeds, has floated into fortune on a wave of Perth whisky, the penmen find wit in the juxtaposition of whisky and soda. Anyway, the choice



of the Colonel is considered a happy one by City folks. He is a member of the London County Council, a hard worker, popular, and will keep up the traditions of his high office. We print a new portrait of the Colonel taken by Messrs. Russell & Son, Baker Street, W.

AT the installation of the Right Hon. Lord Wantage, V.C., K.C.B., as Provincial Grand Master of Berkshire at Provincial Grand Lodge, held at Reading on October 14, his Lordship conferred the honour of Provincial Grand

Steward upon Bro. W. R. Cook, W.M. of the Vale of White Horse Lodge, Faringdon, No. 1,770. Mr. Cook, pharmaceutical chemist, is proprietor of the business carried on under the style of Ballard & Co., Faringdon, Berks.

MR. G. SWINN, eldest son of Mr. Charles Swinn, of Upper Moss Lane Pharmacy, Manchester, who recently passed his Major, began a three-years' engagement on October 6 with Messrs. D. Waldie & Co., at Koinagar, near Calcutta. Mr. Alfred Rhead, lately dispenser at Manchester Royal Infirmary, has accepted a three-years' engagement with Messrs. J. B. & E. Samuel, at Mussoorie, North-West Provinces, India. Both were pupils of Mr. Charles Turner at the Manchester College of Pharmacy.

Business Changes.

Notices of changes in the retail trade, and opening of new businesses, are inserted in this section free of charge, if properly authenticated.

MESSRS. BOOTS (LIMITED) have opened new premises in the Wardwick, Derby.

MESSRS. AUSTIN & SON, chemists and druggists, have opened premises at High Street, Saltley.

MESSRS. STEIN BROTHERS, late of Seething Lane, E.C., have moved to Eastcheap House, 24 Eastcheap, E.C.

MR. E. MARSHALL, chemist, Wavertree, Liverpool, has opened a branch at Edge Lane, the fittings and recess-rounds having been furnished by Messrs. Evans, Sons & Co., Liverpool.

MR. J. OWEN, who has been for some years in charge of a branch establishment at Llandudno, has secured premises in High Street, Bangor, which he will shortly open as a pharmacy.

MR. G. H. COOPER, chemist, Failsworth, has removed to new premises, and has had new interior fittings complete, the whole having been executed by Messrs. Evans, Sons & Co., Liverpool.

THE business of Messrs. Kemp & Elmitt, of High Street, Lincoln, will, on account of the recent death of the senior partner, Mr. John Kemp, in future be carried on solely by Mr. George Elmitt under the old title.

MR. A. W. SHIRRAS, chemist and druggist, at present manager with Mr. Thomas Harley, chemist, Perth, has leased a shop in the vicinity of Kittybrewster, Aberdeen, opposite the station, where he will carry on business as a chemist and druggist.

MR. ALEXANDER GRASSICK, chemist and druggist, Bucksburn, near Aberdeen, has acquired the business of the late Mr. Macrae at Craigellachie, Speyside. Mr. Grassick's business in Bucksburn has been taken over by Mr. John D. Hardy, of Edinburgh.

MR. O. F. DUNFORD has sold his business at Wiveliscombe Somerset, to Mr. T. D. Robinson, late of Biggleswade. Mr. Dunford has purchased the two businesses and mineral-water plant of the Surrey Chemists Company at Chertsey. Both transfers were conducted by Messrs. Orridge & Co., 32 Ludgate Hill.

MR. J. WILLIAMSON, chemist, Church Road, Hove, has developed his photographic trade to such an extent that he has lately opened a branch in Western Road which will be more especially devoted to photographic business. Mr. Williamson makes a speciality of cinematographic films, and is a well-known exhibitor of local views with the cinematograph.

FROM KOLA TO CAPTIVITY.—The notorious native brigand Samory, recently captured by the French in the Soudan, passed his early days as a collector of kola, but gave up that peaceful pursuit some years ago, when petty warfare and brigandage became his favourite occupations. His name is to be added to those of other African chiefs who enjoy pensions from the French Government and forced residence abroad.

Trade-Marks Applied for.

Anyone who objects to the registration of a trade-mark must address the Comptroller-General, Patent Office, Chancery Lane, W.C., within a month of the date of publication.

(From the "Trade Marks Journal," October 12, 1898.)

"CRENASOL"; for chemical substances for agricultural, veterinary, and sanitary purposes, and for use in medicine and pharmacy. By Jeyes' Sanitary Compounds Company (Limited), 64 Cannon Street, E.C., manufacturing chemists. 216,945 and 216,946.

"CZEROLEN"; for an ointment or ointment-base for use in medicine and pharmacy. By A. & M. Zimmermann, St. Mary-at-Hill, E.C., chemical agents. 216,154.

"SILENETTE"; for chemical substances for use in medicine and pharmacy, and for surgical instruments, apparatus, and contrivances. By the Silenette Proprietary (Limited), Melbourne, vendors of proprietary articles. 216,544 and 216,545.

"HERNO"; for trusses, surgical appliances and instruments. By Vincent F. Wood, Blackfriars Road, S.E., surgical-instrument maker. 216,582.

Device (the essential particular) and wording; for oils for heating, lighting, and lubricating. By J. H. & S. Johnson, White-chapel, Liverpool, manufacturing chemist. 216,254.

Combination of devices (the essential particular) and wording "Cashmere Soap"; for perfumed soap. By the United Alkali Company (Limited), Liverpool and Runcorn, manufacturers. 216,376.

Picture of bird resting on forefinger of hand; for baking-powder. By John Sharp, Leeds, wholesale druggist. 215,978.

(From the "Trade-marks Journal," October 19, 1898.)

"VOLENITE"; for chemical substances for use in medicine and pharmacy. By Volenite (Limited), St. Helen's Place, E.C., manufacturers. 215,096.

Device of man reaping corn and the word "Reaper" (the essential particulars); for corn-plasters. By A. de St. Dalmás & Co., Leicester, manufacturing chemists. 216,646.

Device (the essential particular) and wording; for a preparation in liquid, paste, and powder form, for cleansing the teeth. By the New Parisian Toilet-requisites Company, Bow Lane, E.C., manufacturers of tooth pastes and enamels. 215,290.

Device representing the old Bishopsgate and the word "Adora" (the essential particulars); for toilet-soap, hair-wash, and dentifrice. By M. E. Foster, Bishopsgate Within, E.C., pharmaceutical chemist. 215,534.

"EXMO" (the essential particular) and wording; for a preparation for the hair. By the "Exmo" Positive Hair-regenerator Company, Stourbridge, hair-restorer manufacturers. 215,973.

"PANILLA"; for perfumery and toilet articles. By G. H. Longuehaye, Tower Chambers, Finsbury Pavement, E.C., merchant. 216,591.

Marriages.

ALLEN—HANBURY.—On October 13, at Holy Trinity Church, Richmond, Surrey, by the Rev. E. H. Hopkins, assisted by the Rev. H. C. Squires and the Rev. E. W. Moore, Percy King, son of the late Edward Henry Allen, of Nottingham, to Elfreda Jane, daughter of Cornelius Hanbury, of Dynevor House, Richmond.

BROOKS—PRICE.—On October 11, at Old Swindon parish church by the Rev. N. E. Howe (vicar), A. H. Brooks, chemist and druggist, Margate, to Agnes Price, of Swindon.

CAMPBELL—BUCHANAN.—On October 17, at Leith, Donald Campbell, chemist and druggist, Leith, to Mary, daughter of the late John Buchanan, merchant, Glasgow.

GASS—HEWITT.—On October 12, at Seacombe, Cheshire Walter Herbert Gass, chemist, Whitehaven, to Betty, daughter of the late Captain Hewitt, of Whitehaven.

PHILLIPS—MERRELL.—On October 15, at St. Paul's Church, Camden Square, by the Rev. George Tiley, assisted by the Rev. A. H. Norvegaard, Alfred James Phillips, pharmaceutical chemist, 155 Cromwell Road, South Kensington, to Rosalie Septima, daughter of the late James Merrell, pharmaceutical chemist, Camden Road.

RUSHTON—JONES.—On October 10, at St Oswald's, Small Heath, Birmingham, Frank Harvey Rushton, chemist and druggist, to Emily, daughter of the late William Jones Smallthorn, Staffs.

Deaths.

RIPPON.—At Great Berkhamstead, on October 7, Mr. R. O. Rippon. Aged 67. Deceased was born in Bartholomew Close in 1831, and was in business as chemist and dentist in Great Berkhamstead for over forty-five years, only retiring in July last in consequence of failing health. He leaves a widow, four sons, and three daughters. Mr. Rippon was for twenty-one years sidesman at the parish church. He was for thirty years treasurer of the Mechanics' Institute, and for the same period auditor of the Town Hall accounts. He was senior trustee of Belshaw's Charity, a member of the National Schools Management Committee, and a member of the Bible Society Committee.

VIGGARS.—On October 5, at Tunstall, Mr. G. D. Viggars, chemist and druggist. Aged 36.

MR. CHARLES CRISTEY, the drug-broker whose death we announced last week, was a member of the London Commercial Salerooms, and there he was to be seen daily. Mr. Cristey's half-century of experience in Mincing Lane made a conversation with him instructive to younger men. He took a far-sighted view of market-movements which only comes with years. Mr. Cristey believed that Mincing Lane is the first place to feel the effects of any political, social, or commercial disturbance. He was philosophic, and of almost Oriental cast of thought. He was interested in drugs in other respects than their commercial value, and often in days gone by contributed to the Pharmaceutical Society's museum, and attended evening meetings when certain topics were on.

Wills of Deceased Chemists.

RYDER.—The will of Mr. J. F. Ryder, chemist, Wets Gorton, Manchester, who died on May 14, 1897, has been proved by Mrs. E. A. Ryder, the widow of the testator, whose personality was sworn at 420*l.* 18*s.* 9*d.*

WILSON.—The will of Mr. Stephen Wilson, chemist and druggist, Peterborough, who died on May 14, 1897, has been proved by Mrs. Wilson, the widow, J. W. Wilson, M.D., and Mr. H. S. Colman, the executors. The testator's personality was sworn at 4,365*l.* 9*s.* 3*d.*

WOOD.—The will of the late Mr. James Wood, chemist and druggist, 41 Goodramgate, York, has been proved by Mrs. Ann Mary Wood, widow and executrix of the testator, whose personality was sworn at 142*l.* 7*s.*

The Winter Session.

Sheffield Pharmaceutical and Chemical Society.

THE annual dinner of this Society was held in the Masonic Hall on October 13, after Mr. Rymer Young's address to the Sheffield School of Pharmacy, which we reported last week. The President (Mr. George Squire) occupied the chair, and among those present were Alderman B. Langley, M.P., Mr. Rymer Young, Mr. A. H. Allen, Professor Hicks, Mr. A. Eberlin (Secretary of the Nottingham Pharmaceutical Association), Dr. Robertson (Medical Officer of Health for the city), Dr. Wilkinson, and many of the leading chemists of the city.

Among the toasts proposed, Mr. A. R. Fox gave "The Houses of Parliament," alluding in his remarks to the Pharmacy Act Amendment Act passed last Session, and the Government Poisons Bill, which they might have again next year. In that case, he hoped their members would endeavour to safeguard the public and insist that the men who dealt in potent drugs should be qualified by education to do so.

Alderman B. LANGLEY, M.P., in responding, said it was possible that the Poisons Bill would be introduced next Session, and it would be a great advantage to members of Parliament if pharmaceutical societies would pronounce upon that Bill when they were acquainted with its provisions. He assured them that chemists might always depend on getting from members of Parliament that attention and respect which their profession and calling demanded.

Mr. EBRLIN, in proposing "The Sheffield Pharmaceutical and Chemical Society," discussed the functions and uses of local societies. There was a certain journal devoted to pharmacy which threw ridicule on such societies. He, however, argued that they had three uses: (1) in promoting good fellowship; (2) as educational machines, providing a regular and continual course of study for young pharmacists at the most critical period of their career; and (3) in assisting legislation in the interests of the public and of pharmacists. As an illustration of the good work done in this direction, he said when the Pharmacy Acts Amendment Bill was under consideration, one of the members for Nottingham, a very intelligent and capable man, opposed it. Their Association, by deputation and correspondence, succeeded in entirely changing his view, and he not only supported the Bill, but promised that any similar legislation should have his most hearty support. (Applause.)

The PRESIDENT, in responding, referred to the foundation of their Society early in the seventies, and claimed that its career had been a very successful one. Mr. Eberlin had had the arrangement of the classes in Nottingham for some years, and his experience was well worth knowing. Nottingham took the lead in pharmacy education, and it was now generally agreed that to the Universities they must look in the future for that education. In Sheffield they had had great success in the past, but in their amalgamation with the Sheffield University they trusted to have still greater success in the future. Eventually they hoped to have a full curriculum at the University College. In proposing the toast of "The Pharmaceutical Society of Great Britain," he said he should be glad to see the Society test the right of joint-stock companies to use the title of "chemists and druggists."

Mr. NEWSHOLME (Vice-President of the parent Society), in responding, said if those who were qualified to carry on the business of a chemist and druggist would not sell themselves to companies they would not be able to carry on their business. They ought to have the power to remove the name from the register of any man who so acted. (Applause.) It was a wretched thing that men who had capital should be allowed to combine as they did to defeat the Pharmacy Act.

Mr. J. RYMER YOUNG also responded.

Mr. J. F. EARDLEY gave the toast of "The Medical Profession," to which Dr. ROBERTSON responded, and said one matter which was coming to the front and would have to be dealt with was the abominable and criminal use of abortifacients.

Mr. A. H. ALLEN, F.C.S., gave "The Sheffield University College and Learned Societies," which, he said, could do a great deal for pharmacists. In his opinion, it was a great scandal that the British Pharmacopœia was prepared without the direct assistance of pharmacists. Dr. HICKS responded.

Liverpool Chemists' Association.

THE first general meeting of the session was held on October 13, the President (Mr. John Bain) in the chair.

MISCELLANEOUS COMMUNICATIONS.

The SECRETARY reported a letter from Mr. A. Serée, of Vesinet, Paris, acknowledging his election as a corresponding member.

An offer on the part of Mr. Prosper H. Marsden and Mr. Harold Wyatt, jun., to overhaul the library and museum during the winter was accepted with acclamation.

Mr. T. H. WARDLEWORTH reported as a delegate on the Belfast Conference; and Dr. SYMES responded to the mention of his name, as President of the Conference during the past two years, and urged all the members to associate themselves with the Conference.

A JUBILEE PRESIDENT.

On the proposal of Mr. T. F. ABRAHAM, seconded by Dr. SYMES, and supported by the PRESIDENT and Mr. JOHN SMITH, it was unanimously and enthusiastically resolved to elect Mr. Ed. Evans, sen., J.P., D.L., of Bromwylla, Wrexham, as President of the Association during the coming Jubilee session of 1899. Mr. Ed. Evans, sen., was one of the founders of the Society fifty years ago.

The following papers were then read:—

THE DUTIES OF A LOCAL SECRETARY.

By John Smith.

In this paper Mr. SMITH dealt first with the system of appointing honorary local secretaries. It was not, he thought, an ideal system, but on the whole it worked fairly well. The only alternative scheme that had presented itself to his mind was the employment of paid officers in various parts of the country, but to be effective a large number would be required, or chemists in some districts would consider others were more favoured than themselves, and the income of the Society would not bear the necessary expense, at least at present. Mr. Smith suggested that it would be an advantage if the circulars requesting nominations of local secretaries were sent out a few weeks later than they are, so as to give the opportunity for local pharmaceutical associations to discuss them at meetings early in the winter session.

The principal duties of a local secretary are to promote the interests of the Pharmaceutical Society in every possible way, to report changes of address of pharmaceutical chemists and chemists and druggists, and to assist the Registrar to keep a correct register; to report infringements of the Pharmacy Act; to collect subscriptions to the Society and to the Benevolent Fund, and to furnish such information as he is able, when required.

Local secretaries are all men in business, and few can afford to neglect their private affairs to any large extent. It is too often the custom to nominate the same person year after year until he expresses a wish to retire. Although he knew local secretaries whose retirement would be a positive loss, he thought that, as a general rule, there should be a change in the office, say, once in three years. Mr. Smith went on to say:—

"To accomplish the work that it might, the Pharmaceutical Society should have the support of every chemist and druggist on the register, and no well-wisher of the Society—that is, no well-wisher of the vocation he follows—will consider that he has fulfilled his obligation to the Society when he has paid his annual subscription. A local secretary cannot be in close touch with every part of his district, and if registered chemists would more frequently inform the Society, either by direct communication or through the local secretary, of facts they have become acquainted with which would be useful in enforcing compliance with the Pharmacy Act, or in keeping a correct

register, and would urge the claims of the Society upon friends who are non-supporters, we would be better organised than we are. It would not heavily tax the funds of the Society if a member of the staff at Bloomsbury Square, qualified for the duty, were placed at the service of local secretaries to call upon non-supporters of the Society in their district. There are many men in business whose acquaintance with the legal powers of the Society and with the devotion of the Council to the interests of all registered persons is very meagre, such acquaintance as they have being in many cases derived from a source which may be described as critical rather than impartial. It is only fair that the case for the Society should be placed before these gentlemen by one familiar with its inner working. I am sure that many local secretaries would gladly give the necessary time, and would welcome such co-operation; and I am sure, also, that where such assistance is desired the Council would most willingly do what they could to comply with the request."

In the remainder of his paper Mr. Smith commented on the importance of keeping the register correct, and suggested an annual meeting of local secretaries to compare notes. The meetings of the British Pharmaceutical Conference offered, he thought, an excellent opportunity for such consultations. After reading his paper Mr. Smith intimated that he intended to resign his position as local secretary.

The paper was favourably discussed. The PRESIDENT approved of the suggestion of appointing a paid official of the Society to visit chemists. Dr. SYMES also approved of the suggestion, as well as of the others that the circulars inviting nominations should be sent out later, and that an annual meeting of local secretaries might be held. He pressed Mr. Smith to retain his office for at least another year, as there was sure to be a large accession of members to the Society shortly, and then they would have a larger number to select from.

Mr. T. F. ABRAHAM and Mr. T. S. WOKES also commented on the paper.

THE DETERMINATION OF THE COLOURING-MATTER IN SAFFRON.

By Edwin Dowzard, F.C.S., &c.

This paper was read by the SECRETARY in Mr. Dowzard's absence. The author said the value of saffron depends on its tinctorial power, and the only real method of valuation is to determine the amount of colouring-matter present. There are, of course, several methods by which the colouring-matter may be estimated, but they take up a considerable time, and are more or less laborious.

The following method has the advantage of being quick, and requires very little attention or manipulation; the results are not absolute, but they give an approximation quite near enough for commercial purposes.

It is, of course, necessary to examine for the usual adulterants; the method about to be described is not designed to give evidence of adulteration, but to enable one to say the value of a sample of saffron as a colouring-agent.

A standard solution of chromic acid is prepared containing 78.7 grammes chromic acid per litre.

One hundred c.c. of the above solution are equal in tinctorial power to 0.15 gramme crude crocin dissolved in 100 c.c. of water. (Crude crocin is obtained by extracting saffron with ether, drying, and exhausting the residue with 50 per cent. alcohol; the alcoholic solution is evaporated to dryness, and the residue taken as crude crocin.)

The sample is reduced to a coarse powder by pestle and mortar, 0.2 gramme of the powder is transferred to a stoppered cylinder having a capacity of about 35 c.c.; 20 c.c. of 50-per-cent. alcohol are then introduced into the cylinder, which is tightly stoppered, and placed in water at 50° C. for two and a half hours. The solution is cooled and filtered, 10 c.c. of the filtrate (= 0.1 gramme saffron) are diluted with water to 50 c.c., and the depth of colour compared with 50 c.c. of the standard chromic-acid solution. (For comparing the colours it is necessary to have two Nessler glasses of equal bore.) If the chromic solution is deeper in tint than the solution under comparison small quantities are removed until equilibrium is produced, and *vice versa*; the solutions are then measured, and the amount of crude crocin calculated. Example:—

Ten c.c. of saffron solution (= 0.1 gramme saffron) diluted to 50 c.c. had a depth of colour equal to 40 c.c. of the standard chromic-acid solution. Therefore $100 : 40 :: 0.15 = 0.06$. \therefore 50 c.c. contains 0.06 gramme crude crocin. $0.1 : 100 :: 0.06 = 60$.

The above sample therefore contains 60 per cent. crude crocin. The finest samples on the market contain upwards of 75 per cent. crude crocin. Good samples of saffron should not contain less than 50 per cent.

Mr. A. C. ABRAHAM thought that in view of the fact the saffron lost its colour so rapidly, the paper just read would be a very valuable standard for many people.

Mr. R. C. COWLEY concurred, and said the proposed method was calculated to supersede some old processes. Some years ago Professor Proctor had brought out a similar process, employing bichromate of potash as his standard of colour. The method in the German Pharmacopœia was nothing like so valuable and complete as Mr. Dowzard's.

The PRESIDENT and Dr. SYMES also expressed their appreciation of the paper, and the latter said it was essential to have some permanent colorimetric test, as the colour of saffron was so fugitive.

Manchester Pharmaceutical Association.

MR. G. S. WOOLLEY, the President of the Manchester Pharmaceutical Association, in his speech at the annual meeting last week (which we reported in our last issue) stated that although that was their thirty-first annual meeting, it was twenty-six years prior to the first of their thirty-one meetings that the Manchester Association was actually founded. It was founded at a meeting of the Mechanics' Institution on November 18, 1841, when the following resolution was passed:—

That this meeting approves of the general principles of the Pharmaceutical Society of Great Britain.

His late father (Mr. Jas. Woolley) called that first meeting together. Speaking of the Pharmacy Act Amendment Act, to the passing of which he claimed Manchester had lent considerable assistance, he said he regarded it as one of the most important Acts passed since the 1868 Act, as it gave them a means of consolidating the Pharmaceutical Society. It did away with the cry, "What is the Pharmaceutical Society doing?" It consisted of the whole body of pharmacists of England, or ought to do, and those who would not join had no cause to complain. Pharmacists who would not associate with the Society should take other steps. They had no right to ask what the Society was doing unless they took some part in its affairs. Speaking of the banquet to the Lord Mayor of Manchester, he said his Lordship was very much gratified with the greeting they gave him, and the affair was a great success. The opposition to the Poisonous Substances Bill showed what they could do when they were united. There were some 10,000 chemists engaged in business, and such a body, if only united, must be a great power, but unless they were united that power was entirely lost.

It was subsequently stated that a pharmaceutical society was in existence in Manchester and Salford in 1826.

North Staffs Chemists' and Druggists' Association.

THE first meeting of the third session of this Association was held at Stoke-on-Trent on October 13. Mr. J. Averil, J.P., Stafford, presided.

The PRESIDENT, in opening the proceedings, referred to the passing of the Pharmacy Acts Amendment Bill, which would, he hoped, have the effect of bringing every qualified chemist and druggist into the Society. He also alluded to the Poisonous Substances Bill, which he considered had constituted a danger to the public as well as to chemists and druggists. It would not, he believed, be heard of again. The new Pharmacopœia was, in his opinion, an improvement upon its predecessors; but he confessed it was difficult to understand what good would come of revising the work in an erratic manner, or by keeping the date at which its publication might be expected a secret. Surely the book could be revised at regular periods

of ten years, with, if necessary, additions following five years after issue. He suggested that a reasonable but definite interval of three months should elapse between the issue and the date of it becoming official. He commented on a few of the formulæ, and concluded his address by remarking on company-pharmacy as a contravention of the spirit of the Pharmacy Act.

Mr. WESTON POOLE, in proposing a vote of thanks to the President for his interesting address, expressed regret that nothing had been done to make it compulsory for youths to pass their Preliminary examination before being accepted as apprentices. His belief was that drug-stores were the outcome of poorly-educated youths being taken into the trade.

Mr. JENKINS, in seconding the vote, commented on the Pharmacopœia.

EDUCATIONAL ARRANGEMENTS.

The HON. SECRETARY stated that through the kindness of Dr. Reid, the Chairman of the Hanley School Board, and Mr. Wilson, headmaster of the Hanley Higher-grade School, he had been able to arrange for classes to be held in advanced botany and chemistry at times when young pharmacists could attend. Ten such students had already joined the classes. He had asked Messrs. Southall Brothers & Barclay (Limited) for one of their students' series of materia-medica specimens, and a book on the subject by Mr. J. Barclay. He was pleased to say that the firm had very willingly promised to forward the gifts.

On the motion of the PRESIDENT, seconded by Mr. CROYDON, Mr. Jones was thanked for his services, and Messrs. Southall Brothers & Barclay for their kindness. It was also agreed to purchase two microscopes for the use of the students, subject to an instructor's services and the use of a room being obtainable.

Mr. JONES complimented Mr. Weston Poole upon the fact that Mr. Finnimore, one of his young men, had won the Bell scholarship. This was the third time it had been won by North Staffordshire students.

A vote of sympathy was passed to the family of the late Mr. George Viggers, of Tunstall, a member who died in the summer at the age of 36 years.

Newcastle Chemists' Association.

THE newly-elected President of this Association (Mr. F. E. SCHOFIELD, of Morpeth) at the annual meeting reported last week, returned thanks for the honour in a characteristic speech, in which he told a story of an "ancient" of his father, who many years ago got lost on the moors with a horse and cart. He and his companion came upon a sign-post, but could not read it. So they rooted it up to carry it along until they should meet someone who could help them. This, he thought, was something like what the Association had done by transporting a sign-post which might have been of some little use in its comparative obscurity to their proud city. Still he highly appreciated the compliment. He referred to other Northumbrian sign-posts. His own good little town gave to the scientific world Turner, its earliest botanic sign-post. Henry Brady and Barnard Proctor were also named as pharmaceutical sign-posts. In the course of some further remarks, he commented severely on the demoralising practice in modern business of tipping servants in order to get their employers' custom.

Sunderland Chemists' Association.

THE annual meeting of this Association was held in the Grand Hotel on October 13, the President (Mr. C. Ranken) in the chair.

Resolutions were passed to send to the local medical men a brief list of the more important changes in the new B.P.; and to send to the principal makers of proprietary medicines an intimation that the members would in no way help the sale of medicines until they were placed on the protected list of the P.A.T.A., ensuring a reasonable profit. Councillor L. Thompson was elected President; and Mr. G. P. Fairman Vice-President. Mr. J. Mitchinson was elected Treasurer; and Mr. R. H. Bell was re-elected Secretary.

The annual dinner was fixed for November 30, to which the President and Secretary of the Newcastle and District Association will be invited.

Chemists' Assistants' Association.

THE first meeting of the new session (twenty-second) was held at 73 Newman Street, W., on Thursday, October 13, when the President, Mr. F. W. Gamble, delivered his

INAUGURAL ADDRESS.

Speaking of the social, political, and educational work of the Association, the PRESIDENT laid special stress on the necessity of secondary education for pharmacists. He pointed out that the object of the Legislature in maintaining for pharmacists a minimum standard of education was to ensure that every chemist should have an adequate knowledge of his business, and urged that it was the duty of every pharmacist to maintain that adequate knowledge. The purpose of the Pharmacy Acts was by no means merely to make a man pass an examination. The examination was the unavoidable evil; it was apparently the only method, and that a most imperfect one, of forming any estimate of a man's knowledge. The whole *raison d'être* of legal qualification fell to the ground if qualified men failed to keep themselves acquainted with the progress of pharmacy. He deplored the neglect of secondary education among pharmacists, and wished to see an effort made to provide "post-graduate" teaching in the higher branches of pharmaceutical knowledge. As illustrating the necessity for continual diligence on the part of chemists he called attention to the influence of science on materia medica, pointing out that a more complete understanding of the physiological function of certain secreting glands in the human economy had added to materia medica several preparations of great interest. The influence of the growth of bacteriology upon materia medica had been enormous. The science of preventive medicine was entirely based on the knowledge accruing from the study of the minute forms of vegetable life. The branch of chemical research which deals with the substances forming the cells and tissues of the body, and with the chemical nature of its secretions and excretions, had added some new remedies to materia medica.

The main factor in the immense production of new remedies during the last few years had been the tremendous advance in methods of organic synthesis, these in their turn being derived from a better knowledge of the constitution of organic bodies. Some of these were briefly reviewed, and the subject showed the necessity of continual application if a man wished to possess an adequate knowledge of his business. The average newly qualified chemist was not prepared to give such application, and this was largely due to the want of scientific training during his apprenticeship. Continuity of education from the schoolroom onwards was a desideratum, and in addition to the certificate of three years' training now required on entry for the Minor examination, it would be a good thing to insist on certificates of attendance in science lectures during the days of apprenticeship.

At the conclusion of the address a vote of thanks, proposed by Mr. T. MORLEY TAYLOR, and seconded by Mr. GEORGE PEARSON, was carried with acclamation; and, after responding, the PRESIDENT referred to the deep loss which the Association had experienced in the recent death of Mr. Cooper, for many years a prominent member of the Association.

Before adjourning the meeting Mr. H. S. Wellcome was proposed as a patron of the Association, and Messrs. Barlow, Goode, Nelson, and Surfleet as members.

Western Chemists' Association.

A MEETING of this Association was held at the Westbourne Restaurant on October 19, Mr. J. H. Mathews (President) in the chair. When the hammer tapped for silence at 9.35 P.M. there were fourteen present, and an increase of four during the evening made up the dozen and a half. Mr. E. M. Holmes, curator of the Pharmaceutical Society's museum, was proposed and seconded for election as a new member.

The PRESIDENT, referring to the annual outing, stated that although most enjoyable it had not received the support which had been expected from members of the Association, and as a consequence there was a large deficit to be wiped out. It had been proposed that this deficit should be paid by the Association, but the small balance which the Association had in hand would not permit that, and moreover he did not think it right that the Association should do so; therefore it was left for as many members as chose to pay it off by voluntary contribution.

The election of the committee for the ensuing year was then proceeded with, the following gentlemen being appointed:—Messrs. Martindale, Hyslop, Andrews, Cracknell, Dyson, Gulliver, Harrington, Mathews, Phillips, Philp, Parker, Smith, Taplin, Warren, and Worsley. The Treasurer's report showed a balance in hand of 3*l.* 13*s.* 10*d.* for general purposes, and 12*s.* 3*d.* for the entertainments.

The PRESIDENT next read a communication from the Secretary of the Federation of Local Pharmaceutical Associations, enclosing an official report of the proceedings of the Federation at Belfast, and urging the Western Chemists' Association to discuss the resolutions which had been passed at the Belfast meeting, and to support them or otherwise.

The Secretary was instructed to acknowledge receipt of letter and report, and to say that the matter would receive attention.

The PRESIDENT then gave a brief *résumé* of the work of the past session, in the course of which he stated that there had been a slight increase of membership, and that the smokers had, thanks principally to the exertions of Mr. Worsley, been unusually successful. He announced that the annual dinner would be held on November 16, at the Café Royal.

Hearty thanks were accorded to Mr. Mathews for his genial presidency during the session, after which Mr. HUMPHREY, referring to the proposed meeting of the British Pharmaceutical Conference in London in 1900, suggested that the Western Chemists' Association, as representing London chemists, should appoint a provisional committee to look after the arrangements. It was thereupon moved by Mr. PARKER that the President (Mr. Mathews) and the Honorary Secretaries (Messrs. Cracknell and Harrington) be appointed a provisional committee with power to add to their number. This was seconded by Mr. HYSLOP, who was much delighted at the prospect of welcoming the Conference to London and returning in some measure the hospitality which London chemists had received in the provinces. The motion was carried unanimously.

Trade Notes.

MESSRS. NEWBALL & MASON, of Nottingham, have been awarded eight gold medals at the Toronto Industrial Exhibition for their specialities.

CHEMISTS who want that 5-per-cent. cash-bonus off Liebig's extract are reminded by Messrs. Cornille, David & Co. this week that the scheme is still in operation.

MEDAL FOR CAMWAL.—At the Health Exhibition now being held at Birmingham in connection with the Sanitary Congress, Camwal have obtained the Institute's medal for aerated water and syphons in hottles.

NOW is the time to buy cod-liver oil, say Messrs. Randall & Son, of Southampton. They have been doing a big thing in it this year, having contracted for a large supply of a special make, and they have still some of this in Norway, which they wish to transfer to British pharmacies before prices go up.

RAPID ESTIMATION OF GLUCOSE.—Mr. R. C. Cowley, of the Liverpool School of Pharmacy, has made a handy synopsis of his recent paper for the use of the pharmacists who may undertake analyses of this character. It is in a convenient form for the pocket, and the author will send a copy free on receipt of a stamped envelope.

MESSRS. A. DE ST. DALMAS & Co., of Leicester, have established a depôt in Hamburg, with a view of extending their trade in medical plasters to Germany, and have appointed Mr. Otto Fuerst, of 7 Rödingsmarkt, their sole

agent for that country. Mr. Fuerst sends us a handsome illustrated price-list in German which has been issued.

MESSRS. SANGER & SONS send us their Price Current for 1898. It is divided into different-coloured sections, proprietary articles, sundries, and photographic goods being the principal. The pages total up altogether to nearly 900. A useful feature of the list is a section of 10 pages giving the proprietary articles which can be bought at special prices in certain quantities.

CHEST-PROTECTORS to sell at 1*d.*, and in the form of cachous, is certainly a good idea for winter trade. Messrs. Potter & Clarke, Artillery Lane, E., are the people who have hit upon it. They send out the cachous on cards shaped like a chest-protector, and they are so nice that there was quite a run upon them in this office when the sample card came in the other day.

MR. H. WIPPEL GADD'S "Synopsis of the British Pharmacopœia, 1898," has reached its third edition, and the author has corrected several trifling slips in the first edition, and added some further notes, especially in regard to the characters and doses. Being a straightforward A to Z compilation, it is complete and handy for everybody. Messrs. Baillière, Tindall & Cox and Messrs. Evans, Gadd & Co. are the publishers.

THE LANTERN SEASON.—Messrs. W. Butcher & Son, Blackheath, S.E., have issued the fourth edition of their little "Lanternist's Pocket-book." It is a neatly got-up little book, containing reference-tables useful for lanternists, diary-pages, space for recording engagements, and lists of slides owned or borrowed. There is a directory of lantern-requisite dealers at the end, in which several chemists' names appear. The Pocket-book is leather-bound, has a pencil, and is supplied free to anyone asking for it.

UNIFORM-NECKED BOTTLES.—Mr. S. Thistlethwaite, of Ashton-on-Mersey, has recently taken out provisional protection for the manufacture of dispensing-bottles with the necks so formed that one size of taper-cork will fit any bottle up to 8-oz. dispensing. The idea is not a bad one, especially for doctors (the inventor suggests), who seem to lose their temper in looking for a cork to fit. That is a thing that chemists and druggists have to do occasionally, and we have no doubt that if Mr. Thistlethwaite can make the necks a little larger than the example he has sent to us, and which is too narrow for most purposes, his idea will catch on.

MICROVOID TOILET SOAP.—The Sharon Chemical Company (Limited), of Derby, have brought out a new antiseptic soap for toilet use, which presents peculiar features and merit, which should make it popular if the soap is judiciously pushed. The soap is yellow in colour, and is offered, either scented or unscented, in boxes of three cakes to retail at 1*s.* 6*d.* per box. It appears to possess marked bactericidal powers, apart from which it is one of the best detergents which we have tried, and there is no question that it leaves the skin refreshed after use, while the makers claim that the soapy water is a strong disinfectant—a claim which Mr. Joseph T. Wood, of Nottingham, voluntarily supports.

New Books.

Any book named in this list can be supplied post-free to any part of the world on receipt of the published price by the Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

Da Costa, J. C. *Manual of Modern Surgery, General and Operative.* 386 illus. 9½ × 5½. Pp. 912. 2*ls.* net. (Kimpton.)

Esmarch, F. *First Aid to the Injured: Six Ambulance Lectures.* Translated from the German by H.R.H. Princess Christian. 6th ed. Pp. 130. 6¼ × 4½. 2*s.* (Smith & Elder.)

Evershed, H. *Practical Sheep Farming.* 7¼ × 4½. Pp. 104.. Sewed. 1*s.* (Jarrold.)

Ganot. *Elementary Treatise on Physics.* Trans. and ed. E. Atkinson. 15th ed. enl. 9 coloured plates, maps, 1,057 cuts. 8½ × 5½. Pp. 1,154. 15*s.* (Longmans.)

Muter, J. *Short Manual of Analytical Chemistry.* 8th ed. 9½ × 6½. Pp. 230. Illus. 6*s.* 6*d.* (Simpkin.)

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Editorial Comments.

The "Minor."

THE October pharmaceutical examinations in Great Britain completed the work for the year in this department, and we are able to sum up the results for 1898. In our issue of September 3 we gave the annual figures from 1893, which showed that the number of candidates examined in London and Edinburgh reached a maximum in 1896, when 1,449 were examined, of whom 793 were dealt with by the London Board and 656 by the Edinburgh Board. It was also shown that the failures in London had not fluctuated greatly, 64.5 to 70 per cent. being the limits; but that in Edinburgh the failures had steadily risen from 50.5 per cent. in 1893 to 67.1 per cent. in 1896. We expressed the opinion that the result of this would be that candidates would not go north in so great numbers in future. Like everything else, the examination-candidate takes the path of least resistance, and he has found that Edinburgh is as stern and wild in examination-matters as in wind and elevation. So candidates are keeping to the south. The results of the Minor for the year are as follows:—

	London		Edinburgh	
	Examined	Passed	Examined	Passed
January ...	247	81	146	46
April ...	310	103	145	44
July ...	340	104	120	49
October ...	266	66	106	42
Totals ...	1,163	354	517	181
Failed ...	70 per cent.		65 per cent.	

We thus find the total number of candidates to be 1,680, or 231 in excess of any other year in the centennium. The

failures in London have been 13 per cent. in excess of 1897, and in Edinburgh 21 per cent. less.

No serious-minded pharmacist can regard these results with equanimity. Year by year the educational arrangements in pharmacy have been improving, students have recognised the need for better education, they have taken it and paid for it, and yet there is not the slightest sign of improvement derived from all this, so far as the examiners' reports reflect educational results. Up to ten years ago the London Board found one candidate out of every two fit to pass the Minor, and in Edinburgh two out of every three obtained their certificates; now, at both places, scarcely one out of every three is passed by the examiners, and in London this month only one candidate out of every four satisfied the Board.

This lapse is serious, and in view of the educational facts already mentioned, and the extension of the examination requirements during the decade, it is unreasonable to attribute the failures to degeneracy in the class of candidates, which is the usual easy explanation offered. A degeneracy so overwhelming as this could not have passed unobserved by the trade as a whole, and we believe we are right when we say that the lads who come into pharmacy now are not, as a rule, inferior in education and intelligence to those of past years. It would be as reasonable to speak of degeneracy of the examiners, which we will not allege; but we do say that the examinations as now conducted are more prone to secure rejection of candidates than to select the qualified and give them the Hall-mark. The worst feature of the extended examination-schedule was not the multiplication of subjects, but the fact that with the inauguration of the two days' method of examination a new system of marking was brought in, the object of which was to find out weak men more quickly than under the old system. There was no particular reason why this should have been done, except that the old way took up time, and the Pharmaceutical Council had quietly arranged to pay examiners by results, and not by the day. It was a smart and business-like arrangement to get the work over as quickly as possible. The plan has succeeded admirably from the point of view of the economist, the average cost of examining candidates (Minor and Major) having been reduced from 2*l.* 16*s.* per candidate in 1892 to 1*l.* 15*s.* per candidate in 1897, although in the meantime the Minor examination has been extended, and the Society has obtained a larger fee for the Minor. By "cost" we mean fees to examiners, chemicals, and the like. This whittling down of the expense has been accompanied by disaster amongst the candidates—the persons who pay for the game.

In the communications which we printed last week other causes of failure are stated. The writers (Edinburgh and London candidates) alleged that in the dispensing-department time is wasted (1) by lack of assistance in getting the requisites, and (2) by the prescriptions given requiring in many cases calculations which are distracting in practical work, and fatal to success in many cases. We are glad to have the other side very clearly presented by other candidates this week; especially are we pleased to note that this week's writers unanimously acquit the London examiners of discourtesy, and use terms akin to affection respecting them. A communication from a Scotch candidate (written before the publication of last week's prescriptions) contains one of the queer percentage-formulæ mentioned by "Duke St. Lane," and the contributor speaks well of the examiners. All these contributors, with one exception, are passed men, and, although of a class who generally look upon examining mankind benignantly, this should not discount the obvious honesty of expression in the

communications. Therefore, we must say without hesitation that the charge of discourtesy is disproved, and, so far, the *outré* prescription allegation is "not proven." This does not, however, explain to the trade why three men out of every four in a total of 265 have this month been considered by the examiners to be unfit persons for registration as chemists and druggists. It may be that the examiners had to deal with the year's remainders—*i.e.*, the men who had been up more than once and came up again after the summer holiday for another trial. However this may be, the failures are there, they are increasing, and, as an old and esteemed correspondent remarks, there is danger to the trade in this systematic rejection. The discussion of the question is bound to do good, and as the trade has been rather prone to put all the blame on the shoulders of the candidates, we think it a good time to look further afield. The examining system is not without reproach; the cheese-paring policy, which is a result of the crippled finances of the Pharmaceutical Society, is bad in principle, and the schedule is too comprehensive for the present method of examining. This is a matter which the Pharmaceutical Council should look into. It has almost got out of touch with the Boards of Examiners, unfortunately, and it may take some courage to interfere, but there is no better time than the present for a renewal of the intimacy between the Council and its examiners.

Opening for Middlemen.

THE Blue-Book on Foreign Trade Competition lately issued by the Board of Trade, and briefly mentioned by us last week, is uncomfortable reading for Britishers. The compiler has evidently done his work with an almost malicious resolution to spare the poor home manufacturer no fraction of the dose which he thinks it necessary to administer. He has searched through the Consular reports on trade of the past two or three years, and has brought together one hundred and seventy-one extracts from them showing with painful monotony, and we are afraid we must agree with far too evident force in many cases, how negligent and incompetent we are showing ourselves in the markets of Europe, Asia, Africa, and America. The picture is too vivid, for if it fully and fairly represented "British Trade Methods" as it pretends to do, British export trade would not survive another decade. It happens to be still far and away the biggest thing of the kind on earth, and it does not maintain the premier position on mere reputation. Our Consuls hear from discontented customers, and instances of stupidity, blundering, and incapacity are more likely to be discussed than the regular course of trade which flows on like a deep river. But they do quite right to apprise us at home of the energy and persistence with which our rivals, the Germans in nine cases out of ten, are pushing their way in the markets of the world.

We are inclined to discount to some extent the Consular comments on the refusal of British traders to meet the wishes of foreign customers. No doubt there is ground for this complaint, but it often happens, too, that the customers' wishes are unreasonable. The reluctance of our merchants to compete with foreign rivals in the matter of unremunerative prices and unlimited credit is comprehensible, and we can understand, too, that certain great makers should not unfrequently find it necessary to refuse orders for a cheaper class of goods than that which they have made it their business to supply. But certain it is that German houses make a greater study than we do of the foreign markets which they commercially invade. Almost every Consul of the 116 from whose reports these extracts are

compiled tells this story. Take Russia, for example. Reports from twelve Consuls are printed, and only one of these—the Consul at Kertch—fails to rub in the same criticism. This gentleman implies it, for he tells us we “do not sufficiently realise the fact that British goods enjoy an unrivalled prestige in Russia. In the most remote villages no more flattering epithet than ‘English’ can be applied to any manufactured article. Personally our fellow-countrymen are far more popular than any other foreigners, and inspire more confidence and respect.” That is about the only pleasant thing in the whole of the Blue-book. But, notwithstanding the confidence and respect which we inspire in Russia, the Consul at St. Petersburg says that in the past six years German exports to Russia have increased by 63 per cent., while British exports have only grown by 23 per cent., and he says the cause is “supineness” on our part. We ought to send travellers there, and print catalogues in Russian, and quote for metric weights. The Moscow Consul also speaks of the superiority of the German commercial travellers; the Consul at Odessa says British firms trust too much to local agents—often foreign Jews—to look after their business for them; the Riga Consul says the German translates his prices into Russian currency, and quotes for goods delivered duty paid at a Russian staport. The Americans do the same, while “the Englishman contents himself with sending over price-lists in the English language and in English currency.”

This price-list question turns up on almost every page, and from almost every foreign country. A quotation of 42s. 9d. per cwt., with freight to be guessed at and Customs duties to be added, and no one available to explain the meaning of descriptions given in the English language, must discourage business. And yet we can understand that only a comparatively few firms could afford the risk of working any of these markets thoroughly. It means travellers for each foreign country, special price-lists, a clerk to correspond in the language, and often new plant to meet the peculiar requirements of the market. The manufacturer on a moderate scale, not unnaturally, if he counts up the cost and fails to find a margin for himself, leaves the market to the Germans, to the disgust of the Consuls and the Board of Trade officials.

But it is here where the middlemen should come in. They are being squeezed out of the home and colonial markets to a great extent, for competition has made it necessary for the buyer and the manufacturer to deal direct wherever possible. But middlemen between British manufacturers and markets like the Russian, the South American, the Chinese, and the Japanese, can, if they are capable, intelligent, and enterprising, make themselves of real use. These Jew agents in Russia, for instance, we are told, are not willing to work for less than 30 per cent. profit, and then in many cases they are not to be trusted. British manufacturers are quite able to compete with Germans and Americans; what they want is competent men to place their goods for them, and middlemen who could do that would be worthy of their hire.

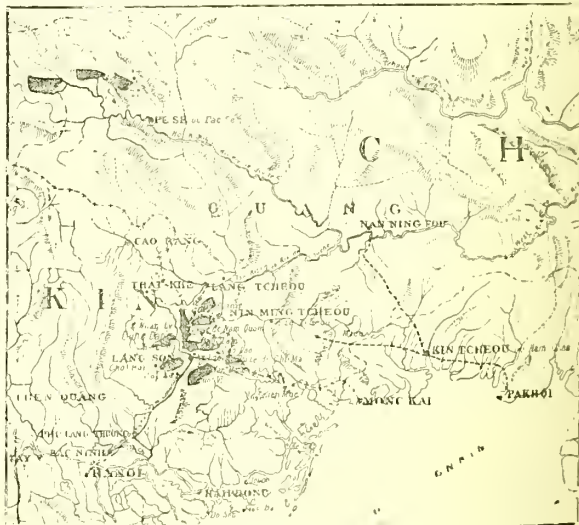
Tonkin Star-anise Oil.

EXACTLY a year ago Mr. John C. Umney called attention in this journal to the adulteration of star-anise oil as imported from Hong-Kong, the quality of a consignment of the oil having been disputed, and samples submitted to him for analysis. He found them to contain up to 58 per cent. of petroleum. Messrs. Schimmel, in their *Berichte* for April of this year, corroborated Mr. Umney's observations, and recalled previous warnings by themselves about the bad

quality of Hong-Kong star-anise oil, commending the work of the French in Tonkin to secure a supply of pure star-anise oil. This reference to Tonkin oil had been anticipated by Mr. Louis Schlesinger, who, writing to the *C. & D.* of October 30, 1897, called attention to the characteristics of the Tonkin oil. It will be useful to compare these with the characteristics of Hong-Kong oil, as the purpose of this note is to place before the trade information regarding the diversion of the anise-oil trade from Hong-Kong:—

	Sp. Gr. at 15° C.	Melting-point after solidification
Hong-Kong oil (pure)...	0.981	15.8°–16.2° C.
Tonkin oil ...	0.978	17.3° C.

Both these sets are from Mr. Umney's analyses. Messrs. Schimmel give for pure star-anise oil sp. gr. 0.986, and point of solidification 18° C., the latter not quite comparable with the melting-point. During the past two or three years the Hong-Kong exporters of star-anise oil have known that their business was in jeopardy through wanton adulteration on the part of the merchants who collected the oil from peasant distillers, which fact was brought home to them by the efforts of French merchants in Tonkin to get pure oil, who thereby might be able to divert the trade from Hong-Kong. The merchants in the latter place, through the Chamber of Commerce, moved the Chinese authorities in the matter, and the Governor of Kwang-Si (the province in which the star-anise forests are) issued an order prohibiting the adulteration of the oil. This



appears to have had little effect, for it was not until about a year after the proclamation that the adulteration of star-anise oil began to be realised in England. Meanwhile the French have perfected their arrangements for securing the purity of the oil, and bringing supplies of pure Chinese oil from Kwang-Si to Hai Phong at the mouth of the Red River. We are indebted to Mr. Schlesinger for a recent French report from which we copy the map section of Tonkin and Southern China, where the star-anise trees grow. The star-anise districts are shown by the black patches. Tonkin is bounded on the north by Kwang-Si and Yunnan, the southernmost provinces of China; the frontier is indicated on the map by the cross-and-dash line, + - + - + -. The Lung Chow (Lang Tcheou) and Pe Se districts, in the South and North respectively, are the Chinese producing centres, and it will be seen from the map that the frontier leaves the greater part of the southern forests in the French province of Lang Son in Tonkin. The trees are now

cultivated, the fruit being gathered in August and September, when distillation commences. Recent investigation has shown that the peasant distillers are honest men, who never think of adulterating the oil. Those in Kwang-Si, when the distilling is over, take the oil into the neighbouring villages, where they meet the merchants from Lung Chow, and hand the oil over to them. These merchants belong to a ring (*La Bande Noire*). They keep the star-anise oil trade in their own hands, and have managed this by getting the peasant distillers thoroughly under their thumb; for, by having advanced them money at a stiff rate of interest on a coming season's crop, they are sure of the greater portion of it in advance, and have a good share of the rest. When they return to Lung Chow with the produce these merchants set about adulterating the oil with vegetable oils (especially castor oil) and petroleum, the degree of adulteration being controlled solely by that incalculable quantity—the honesty of John Chinaman. It is this mixture which finds its way to Hong-Kong *via* Pak Hoi by the routes indicated on the map, the Pe Se oil travelling by the Ho Kiang to Nan Ning Fou, and thence overland to Kin Chow, whither the Lung Chow oil also goes, as indicated. The efforts of the French have been directed to defeating the machinations of the Lung Chow ring, and in this they have had so good success that they are now not only supplying foreign trade through Hai Phong merchants, but are shipping the oil to Hong-Kong in containers similar to those hitherto used. Their scheme is the perfectly simple one of going to the native distillers and paying them a good price for the oil as it comes from the stills, pains being taken to see that nothing but the pure distillate is delivered to them, and this is afterwards bulked and packed. During the past two seasons 105,600 lbs. of the pure oil have in this way been diverted to Hai Phong (the average annual exports from Hong-Kong amount to about 270,000 lbs.). The oil is taken overland, partly by rail, to Hanoi, and thence by the Red River to Hai Phong. Mr. Schlesinger informs us that the cost of carriage by this route is less than by the old one, and it is quicker too, for new season's oil is brought to Europe four weeks earlier than hitherto. We do not suppose that the Chinese merchants who have the bulk of the trade in their hands will not be equal to this competition: they are clever enough to be honest when they are found out, and they do not persist in dishonesty when they learn that it pays to be honest. They have an opportunity for righteousness now which Hong Kong houses should not be slow to press home to them.

EXPORT OF METHYLATED SPIRIT.

By a new General Order ¹⁵/₁₈₉₈ just issued by the Board of Inland Revenue, permission is given for the export of methylated spirit in vessels containing 1, 2, 3, or any number of even gallons, provided the vessels are packed in cases containing not less than 10 gals. each.

FOR COLONIAL CUSTOMERS.

There is a young man in London to whom justice is not done. He writes a London letter to a Canadian contemporary, and many of the fine things he says are marred by an erring printer. For example:—

The difficulty of sending [to the British colonies] special editions of trade publications when they contain insects is at present insurmountable.

"Insects" is good. "Insets" is the word. As we read the little bit we quietly hug ourselves, for *THE CHEMIST AND DRUGGIST* happens to have got over any difficulty there may be, and the Summer and Winter Numbers are welcomed as heartily in Montreal, Toronto, and Victoria, B.C., as they are in London, Bulawayo, Bombay, and many other places.

THE P.A.T.A. DEFENCE FUND.

The P.A.T.A. has not yet accomplished all its purposes, but its executive committee are evidently scornful of the rest which sometimes tempts similar organisations. The "defence fund" scheme which they have drafted for the consideration of their members looks ambitious, but we should not like to characterise it as impracticable. Of course a couple of accidents, and a little activity on the part of our familiar foes, the Apothecaries' Society, the public analyst, the Board of Inland Revenue, and the rest, coming together in one year, might easily burst up the whole concern; but, after all, if luck should declare against them to such an extent, they could only pay up to the extent of their reserve, and they would have done some service. At first sight the scheme looks like offering a premium to law-breakers, but we are inclined to think this danger is sufficiently guarded against, as all the fund proposes is to provide a defence up to 10l. The culprit would have to pay his own penalty and any costs which might be imposed. We may expect to hear more of this proposal.

A CURE FOR CANCER.

Dr. Herbert Snow, the well-known cancer specialist, has made an important observation in respect to cancer, about which he writes a preliminary note to the *Lancet*. He has observed that in certain forms of cancer the lymph-glands are not affected at all, and has come to the conclusion that it is the function of these glands not only to arrest, but actually to destroy, the protoplasm of cancer. In the ordinary course of events this takes place only up to a certain point. Eventually the gland is overpowered by stress of numbers, but under some circumstances the resistance is long-continued, and the number of infective particles killed must be considerable. On the supposition that a natural secretion is the active agent, Messrs. Warrick Brothers made for him an extract of fresh lymph-glands, and this he administered in sundry cases with apparent benefit, and never with any bad symptom. A gentleman seen in July, 1897, going down hill very fast with advanced cancer of the stomach, and very unlikely to survive beyond November or December, had his life prolonged until last April. Dr. Snow appeals to some competent physiologist to take the matter up.

OUR CRITICS.

We sometimes criticise others, and must submit to be criticised ourselves in return. Here are the two latest specimens:—

Mr. Eberlin, the Secretary of the Nottingham Chemists' Association, speaking at the Sheffield Chemists' dinner, is reported to have said that "a certain journal devoted to pharmacy threw ridicule on local societies." Mr. Eberlin may or may not have had *THE CHEMIST AND DRUGGIST* in his mind in this reference; if he had, the allusion was both unjust and ungenerous. Nowhere in our past fifty-two volumes could he find anything like ridicule of local societies. He might find occasionally criticisms of particular papers or discussions, but we much mistake the temper and the sense of chemists generally if they are going to stipulate that we are to report their meetings, but never to offer anything but compliments on their proceedings.

At Liverpool, Mr. John Smith, the local Secretary of the Pharmaceutical Society, in a paper on "The Duties of a Local Secretary," said, "There are many men in business whose acquaintance with the legal powers of the Society and with the devotion of the Council to the interests of all registered persons is very meagre, such acquaintance being in many cases derived from a source which may be described as critical rather than impartial." We will not pretend to believe that we are not alluded to here. But we would ask in reply if it is impartiality that Mr. Smith wants of us? Is

it quite impartial to suggest that no chemist can be a well-wisher to his vocation without being also a well-wisher and a subscriber to the Society? Moreover, if we have sometimes taken a view of the Society's action not quite in harmony with that of the majority for the moment, we may claim that we have never refused to give any properly-expressed reply to our remarks. Is not this impartiality?

VANILLIN-TESTING.

In the course of an article in the *Pharmaceutische Zeitung* on this subject Welmans mentions that the price of vanillin in 1873 was 7,000m. (350l) per kilo. (35 oz.), in 1890 it had been reduced to 700m., in 1896 to 560m., and last year to 125m. Hence there is now great temptation to adulterate the article, and, as a matter of fact, such adulteration is taking place, especially with acetanilide. Welmans refers to recent exposures of the matter, and points out that pure vanillin in fine crystals melts in the open air to a colourless fuse, but if the crystals are large the fuse is apt to be yellowish, so that a brown or red colour indicates impurity of tarry origin. Pure vanillin dissolves in sulphuric acid to form a lemon-yellow solution similar to that of citric acid in the same solvent. He also points out that vanillic acid is a probable impurity of vanillin made by the oxidation of aceto-eugenol with potassium permanganate, and although vanillic acid has a much higher melting-point (207° C.) than vanillin (83° C.), its presence serves to depress the latter by a few degrees, so that 10 per cent. of vanillic acid in vanillin gives a mixture melting at 80–81° C. As a simple means of estimating vanillin he suggests saturation with standard alkali. If 1 gramme of vanillin is shaken with excess (25 to 26 c.c.) of decinormal potash (alcoholic) the mixture becomes viscous and white almost instantly, but on warming to 40–50° C. it liquefies, and the excess of alkali can be determined with decinormal hydrochloric acid with phenolphthalein as indicator. The proportions recommended are:—Vanillin 1 gramme, rectified spirit 25 c.c., decinormal KOH 25 c.c., and phenolphthalein 2 or 3 drops. Shake in a 200-c.c. stoppered flask, and titrate excess of alkali with decinormal acid. As one gramme of vanillin equals 0.36842 gramme KOH [since $C_6H_5COH.OCH_3.OH$ (152) = KOH (56)], 1 c.c. decinormal KOH = 0.076 vanillin. Acetanilide does not affect decinormal alkali; vanillic acid does, 1 gramme requiring 0.3 gramme KOH, so that the amount of either can be calculated if they are present.

Reviews.

Natural Hygiene, or Healthy Blood, the Essential Condition of Health, and How to Attain It. By H. LAHMANN, M.D. London: Swan, Sonnenschein & Co. (Limited). Small 8vo. Pp. viii + 253. 4s. 6d.

"MORE fresh air, less salt, and no meat" is a fair summary of the author's argument. His system of dietetics is well known to continental vegetarians, and the present book is an English translation of his "*Dietetische Blumenmischung*," which has gone through seven German editions since 1871, besides translations in French, Russian, and Dutch. Although we have failed to get into full sympathy with the author's arguments against the dietary which civilised man prefers, we do feel that there is much wisdom in the reform which he urges, especially in regard to the consumption of common salt. Many besides Dr. Lahmann have found that salt is eaten to excess. He says that the body is so eager to get rid of it by the osmotic process that an overplus of liquids has to be taken daily, and the organs of the body are so taxed that disease is inevitable. Moreover, the general diet is deficient in lime, and there is starvation of the system in that respect, with consequent disorder. By study of the chemical composition of foodstuffs, observation of the fact that the human economy is able to manufacture albumen for itself, and pathological and physiological research, the author has devised a system of diet

(practically vegetarian), the benefits of which in the prevention and cure of common diseases are set forth in this volume.

Formulaire Hypodermique et Opothérapique. Injections sous-cutanées d'huiles médicamenteuses, d'essences, de substances minérales, d'alcaloïdes, de sucs animaux, de glandes, d'organes et de muscles. B. DR. E. BOISSON et J. MOUSNIER. Paris: J.-B. Baillière et Fils. 16mo. xviii. + 261 pp. 3 f.

THE rapidity with which hypodermic medication has increased during recent years has been especially notable in France, and although an Edinburgh doctor was before Pravais in showing the medical profession the benefits of hypodermic medication, the lead which Pravais took in designing the hypodermic syringe has been followed by his countrymen. For example, this useful volume is dedicated to Dr. J. Roussel, the creator of oleaceous hypodermic injections, the most noteworthy advance in this line since Pravais' day. The book is divided into four parts. The first deals with apparatus used in giving hypodermic injections, the precautions to be observed in keeping the apparatus clean, the best means to that end, and how injections are given. The second part is a formulary of medicated solutions for hypodermic use; the third is a conspectus of diseases and their subcutaneous remedies; and in the fourth part animal medication is dealt with.

Die Kunstlichen Düngemittel. Von DR. S. PICK. Vienna: A. Hartleben. 8vo. Pp. viii + 245. 1fl. 80kr. (3s. 3d.), in paper covers.

THE science of fertilisers cannot all be compressed into a book of this size, but this is a popular work in German intended for manufacturers and users of fertilisers, and the author succeeds in telling them the most interesting facts regarding the common fertilisers, such as their origin (if natural), how they are made (if artificial), their composition, and what they will and will not do. Besides this the book contains useful statistics of the production and use of fertilisers, and the descriptions of manufacturing-processes are illustrated with figures of the apparatus. The present is the third edition of the book, which forms one of the volumes of Hartleben's chemico-technical handbooks—one of the most interesting bibliographic successes of modern times.

A Short Manual of Analytical Chemistry, Qualitative and Quantitative, Inorganic and Organic. By JOHN MUTER, Ph.D., &c. English edition. 1893. Simpkin, Marshall, Hamilton, Kent & Co. (Limited). Large 8vo. Pp. xiv + 230. 6s. 6d.

"MUTER'S MANUAL," as it is familiarly known to students of pharmacy, is steadily advancing in popularity in our educational circles. This is not surprising. It is a concise book, deals solely with what it professes—analysis—and takes the student from the beginning: recognition of a simple salt, through complex inorganic analysis to the detection of alkaloids and other organic medicinal compounds, and then on to quantitative analysis as required in the Minor and Major examinations, besides extras which the pharmacist will find profitable in business—e.g., water, milk, and oil analyses. There is no question that the book is one of the best works on analytical chemistry for pharmacists and students of pharmacy, because every test described shows evidence of practical personal proof, the separation schemes are systematic, and considerations of the needs of pharmacy characterise the selection of the matter. As a large part of the section dealing with quantitative analysis directly relates to pharmacopoeial methods, Dr. Muter has brought this in line with the new B.P. requirements, about twenty pages having been added. The index is deleted, and the contents-table slightly extended as compensation. This we consider a mistake. Everybody uses an index; few know how to use a contents-table of a book.

HAIR-SPECIALITIES.—Electrotypes of the two illustrations on pages 61–62 of "*Pharmaceutical Formulas*" can be obtained post free for 5s. on application to the Publisher, C. & D., 42 Cannon Street, London, E.C. For almanacs, handbills, &c., chemists and druggists will find these useful to give along with a description of the structure of the hair and how to keep it well preserved.

The Minor Examination.

Successful and Unsuccessful Candidates express their Views.

LONDON (JULY).

HAVING paid my fee and got through the necessary preliminaries, in due course I presented myself at 9.40 A.M. for the practical work. I was told off with some others at five minutes to 10 to go into the dispensary. Here we found Messrs. Saul and Arkinstall waiting for us. This was the paper given me by Mr. Saul:—

Hyd. c. cretâ gr. iij.
M. Ft. pil. Mitte vj.
Hyd. ioidid. rub gr. j.
Morph. mur. gr. ij.
M. Ft. suppos. vj.

Send a belladonna-plaster the size of the prescription-paper with an adhesive margin.

Send quite cold—

Oss. liq. plumbi.

This last, of course, I did first.

And now I come to an instance of the reason why so many candidates fail—viz., because they lose their heads.

The two fellows next but one on either side to me had the same paper as myself. They both failed to pass on it, and for the same reason. They read the second item as

M. Ft. suppositorium. vj.

and sent six, containing in each 1 gr. of hydrarg. ioidid. and 2 gr. of morph. hydrochlor.

That constituted a mistake which no examiner could in fairness allow to pass. One of them as well put a margin about 2 inches wide on the plaster, and the other got his iron too hot and made a mess of it altogether. I took my time, did not hurry, and was finished by about twenty minutes to 1.

At 2 o'clock I was there again, and was sent up to the chemical "labs." for practical chemistry. I had to do my qualitative work first, and was given a known salt to find the admixture. Salicin was given me, and I proved the impurity to be NaCl. Then for volumetric work I had some H₂SO₄ of unknown strength. Required to find strength with Na₂CO₃, and with it so standardised to estimate the strength of a sample of liquor potassæ given. This was soon done, and I departed satisfied with my work.

The following evening I was requested to attend for the oral.

At the time appointed I was there, and after a short delay was requested to go to Mr. Seward for botany. Botany not being one of my favourite subjects, I felt a little nervous, but that feeling soon vanished. I was shown transverse sections of dicotyledonous and monocotyledonous stems, and of an ovary with parietal placentation. He asked me how a dicot increases in thickness, and what is the difference between a dicotyledon and a monocotyledon. Also he asked me concerning the processes of respiration, assimilation, and transpiration. He then showed me *Ruta graveolens*, *Althæa officinalis*, and *Solanum Dulcamara*. This done, he told me to sit down.

Next I was sent to Mr. Saul for chemistry. He gave me a calculation to work out, and waited very patiently until it was finished. He then took me through carbon, carbon monoxide and dioxide, properties and methods of manufacture, and the allotropic modifications of carbon.

After about twenty minutes of this he said I might go and sit down in the next room. I had hardly done so when I was sent off to materia medica. I do not know the name of the gentleman who examined me in that. He showed me Stockholm tar, balsam of Peru, and ol. santal. flav.; asked me all about tars, balsams, and fixed, essential, and volatile oils; sources of quinine; showed me rad. belladonnæ, aconiti, gelsemii, taraxaci, et pyrethri, and fol. conii. He asked me several habitats, and also to point them out on the map which was hanging up in front. He then told me I might go.

I was next called to Mr. Phillips for prescription-reading. Here I may say candidates must not think they are going to be presented with specimens of handwriting resembling Egyptian hieroglyphics. The prescriptions submitted are such that one hourly meets with in the pharmacy. I was told to write out in full Latin a prescription written in English, and this done I had to read out some from the book. He asked me several doses, and then told me to go and sit down.

Next I was called to Mr. Arkinstall for pharmacy, and, knowing my B.P. well, I had little difficulty in answering the questions. What is clutiation; dialysis; how to make liq. ferri dialysatus; ol. phosphorat; ung. octacei; liq. ferri persulph.; strength of opii and nearly all opium preparations were the questions. I was told to write down Part I. of the Poisons Schedule to the Pharmacy Act, and asked to give the precautions relating to the Arsenic Act.

This concluded my examination, and then the Chairman called me up and congratulated me on passing a very creditable examination, and hoped I should come up for the Major.

LONDON (OCTOBER).

On reading the *C. & D.* this week I was much struck with the large percentage of failures at the recent Minor examination held in London, and—although you set out such a formidable array of prescriptions as having been given at Edinburgh, where the percentage of failures is much less than in London—intending candidates may well be dismayed. In their interests, and remembering how much I used to value the experiences of candidates which you have from time to time published, I venture to send you my experience in London this time. I certainly am amongst the sixty-six passes, but as this is not my first attempt I am not unduly elated.

I should like to point out that the collection of Edinburgh prescriptions you print is not, in my opinion, calculated to give one a fair idea of the papers given, for probably no candidate had more than one of the above-mentioned given him to do, so that, unless one had before him the paper in full of the candidate, it is unfair to judge by the collection. The prescriptions which I had, and those of about a score of others which I saw on various days of the examination, were such as would be met with in any ordinary pharmacy. I was sent to dispensing first. The paper I had was as follows:—

Tr. opii 5j.	Santonin. gr. x.
Tr. catechu 5ij.	Ol. ricini 5j.
Mist. cretæ ad 5vj.	Muc. acac. 5ss.
½ 4tis horis.	Aq. ad 5iv.
Ferri arseniat. ... gr. ½	½ pro desl.
Ext. nuc. vom. ... gr. ½	Aloin. gr. ij.
Quinin. sulph. ... gr. j.	Ext. bellad. gr. j.
Fiat pil. Mitte xij. Varnish.	Ol. theobrom. ... q.s.
Emp. bellad. 6 inch diam. for the breast.	Fiat suppos. Mitte xj.

Other candidates had much the same style of thing, such as creosote mij. in a pill, suppositories (glycerin principally), mixtures (guaiaicum, hyd. ioidid. rub, pot. ioidid., and dec. sarsæ, &c.), emulsions (castor oil and turpentine, with egg). Four men who had this last to do used only the yolk of the egg, and were called to account by the examiner. One man quoted Remington (with what truth I know not) that white of egg was fatal to emulsion. I know that idea is very prevalent, but my experience is that the whole egg (*minus* the shell, of course) makes a much nicer emulsion. However the examiner told him that when an egg was ordered it was his duty to dispense it. Two or three candidates had a gargle of alum, acid. sulph. dil., and tr. myrrhæ. One only dispensed it as written. The others added mucilage—quite unjustifiably, I think, for here was obviously an astringent gargle, and they deliberately nullify the prescriber's intentions by adding a demulcent-like mucilage. Lin. terebinth. was again to the fore. You can judge, Mr. Editor, if anyone had much cause for dissatisfaction with the above. As to the arrangements in the dispensing-room, they are as good as can be expected under the circumstances. All the drawers are labelled with the names of the contents, th

bottles are all arranged alphabetically, and almost every one is within arm's length as you stand in front of them.

In the afternoon I went to chemistry. I had to estimate the real amount of iodine in 1 c.c. of a solution given me, and with that solution determine the amount of hyposulphite in a powder given. I had in the pill-box an unknown substance mixed with manganese dioxide. I made it out to be glucose, which was correct. The arrangements here are admirable. There is one balance between two candidates, one of whom has to do his quantitative work first, while the other does qualitative, so there is no clashing.

On my second day I was first sent to materia medica, was shown ipecac-root, and had to name the official preparations. Next, aconite-root. Was it English aconite? Official preparations? Any other part of the plant used? What preparations? Next, belladonna-root, digitalis-leaves, belladonna-leaves, kamala, and lupulin, about each of which similar questions were put. Then gum benzoin. What was it? What official for? How much benzoic acid did it contain? How was the acid prepared from benzoin? Was it obtained from anything else? Would it be the same whether obtained from benzoin or hippuric acid?

Chemistry was my next subject. The examiner asked me how I thought I had got on with my practical work. I told him I was quite satisfied with it. I then had to go through a considerable portion of the chart for the separation of metals, he asking me as I went along my reasons for what I did, such as: Why boil the filtrate from Group 2 with nitric acid before going on to Group 3; why evaporate to dryness the precipitate in Group 3, &c. Next, what was the principal source of chromium salts? Had I ever made any? Here I got a bit mixed, for in making chrome alum I added nitric acid, and was pulled up at once. Then I recollected that it was in making iron alum I had used the nitric acid. Next I had to write the equation for the action of H_2SO_4 on $\text{K}_2\text{Cr}_2\text{O}_7$. Had I made any copper salts? "Yes, sulphate." How? "By dissolving copper oxide in H_2SO_4 ." What colour was the solution—blue? "Yes." What was the action of strong H_2SO_4 on Cu? Told him. What colour would the solution be? Unthinkingly I answered, "Blue." Well, what property has strong sulphuric acid, besides being a strong acid? I told him a desiccating agent. What is the formula for copper sulphate? " $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$." Then I tumbled to it that the solution would not be blue, as the acid would render it anhydrous. I had several questions on acetic-acid manufacture. What were the products of the destructive distillation of wood? How was crude acetic acid purified? Then a few questions on arsenic preparation, &c., all of which I believe I answered fairly well. I should have mentioned before that on going over my volumetric work the examiner drew my attention to the instructions on the cover of the book given to record it—i.e., to put down every weighing and every burette-reading as it is done. I did not think it necessary to show that 0 from 12.5 was 12.5, or that 12.5 from 48 was 35.5, but was informed that these instructions were put there in "cold blood," and had an object, and went on to say that one candidate had put down 13.8 from 35.12 was 18.4, or something like that, so that a very great error would have been made, whereas actually his work was correct. He then turned up my calculation, and showed me that I had made 5.816—4.682 to be 1.134; he had worked out the correction himself, and my estimation was right to the third decimal place.

The next subject—botany—I found the only unsatisfactory part of the examination. I was shown cross-sections of three pieces of wood, had to name the parts, then I was asked what the grained part of the table at which we sat was, also the longitudinal markings. A piece of cane was given to me, and I had to say what the constricted part was. Three slides under the microscope had to be recognised, also branches of belladonna and dalecamara, and an inflorescence of yarrow; what natural order did it belong to? That was all; not a single question in theory.

In pharmacy I was asked what was the general method of making the effervescent preparations; how did the mixture granulate? Owing to moisture, I told him. Where did the moisture come from? After some prompting I made it out to be from the citric acid. How was ext. bellad. alc. prepared? What was the general method of making the B.P. tinctures? Maceration and percolation, solution, percolation

alone, and maceration alone. Name one made by maceration? Orange-peel. Why was not that made by percolation? Because to percolate the peel would have to be powdered, to be powdered it would have to be dried, and drying would spoil the aroma. Name one made by percolation only. Tinct. zingib. fort. Yes; one made by solution? Iodine. How was tinct. strophanthi made? Why were the seeds percolated with pure ether? Why use pure ether? Did I know any other substance containing oil that a tincture was made from? Yes; stramonium-seeds. Why were not they percolated with ether? That, on consideration, I guessed was because stramonium was made with proof spirit and strophanthins with rectified; the examiner mentioned that in the new B.P. the ether was discarded and the tincture prepared from 70-per-cent. alcohol. I was then told that was sufficient.

My last subject was prescription-reading and doses. I had to write out a translation into good Latin of two prescriptions. The ingredients were simple, the directions as follows:—"Dissolve, put into a stoppered bottle, 2 or 3 drops to be dropped into each eye daily," and "The plaster to be applied to the loins." The former I did correctly; the latter I put down *ad umbilicum* for the loins, at which the examiner laughed heartily; however, on thinking again, I got hold of the right word. Next, I had to translate three or four Latin prescriptions into English; then followed a dozen or so doses.

After an interval I was called up and went through the usual hand-shaking with the President, and received my dismissal gladly. I should like to say that the examinations seem to be conducted very fairly, and if a man knows his work pretty well, the examiners—not only those I had personal experience of, but others, from what I gathered whilst talking with a lot of other men—are remarkably considerate, and the abuse that was heaped upon their heads by one or two rejected candidates, who to judge from their conversation were shockingly badly prepared, was simply scandalous.

J. S. (68/43.)

I enclose the prescriptions which I obtained at the last Minor, London. They could not well be easier for a candidate. It was my first attempt, and I had no trouble in finding what I required, with the exception of the menthol for my plaster, and the examiner found that they had none, and I was told to spread the mixture of resin and yellow wax I had made. Just as I was about to do this a porter brought in a bottle of menthol which I was requested to use. I regret to say I failed in practical chemistry entirely through my own nervousness, and I must add that I was not troubled by the examiners throughout the whole six hours.

Make 4th B.P. quantity syr.	Olei ricini ...	...	...	3j.
ferri iodid.	Pulv. acaciae	...	...	q.s.
Menthol plaster. Spread one,	Aquam ad	...	...	3iij.
4" x 4".	4th part for a dose. Divide bottle.			
Ferri sulph.	...	...	gr. 1/2	
Ext. belladon	...	...	gr. 1/2	
Ext. nucis vomic.	...	...	gr. 1/2	
Pil. rhei co.	...	...	gr. 2	
Misce fiat pilula. Mitte xij.	Pulv. opii	...	...	gr. 1/2
Silver.	Sacch. lact.	...	...	gr. 1/2
One night and morning.	Ft. pulv. Mitte vj.			
	One every night.			

T. W. H. (68/11.)

I received nothing in dispensing that might not have been handed in in the ordinary course of business, and I was treated with perfect fairness. It goes without saying that dispensing is not to be learnt in three, or even six, months at a school of pharmacy; consequently one cannot be much surprised when so many come out on this subject, especially when consideration is also taken of the disadvantages one is placed under when there. I found my examiners exceedingly pleasant, and willing to assist me to anything I could not find.

As for the rest, I fail to see how the dispensaries could be arranged better. I enclose you the papers I had both at the April and the July examinations. I had the misfortune to "come out" on the second day in April; but "that's another story." We all of us know the glaring injustice and unfairness of the *revd-roce* examination.

APRIL.

Quin. sulph. ... gr. xij.
Spt. chlorof. ... 3ss.
Inf. rosæ acid. ad ... 3vj.

M. 3ss. ter die sum. post.
aliment.

(This, by the way, is the
same "scrip" practically as
in the "Art of Dispensing.")

Ung. pot. carb. ... 3j.

Ext. belladonn. ... gr. $\frac{1}{4}$
Ext. nucis vom. ... gr. $\frac{1}{4}$
Ext. aloes soc. ... gr. $\frac{1}{4}$
Ext. lactucæ ... gr. $\frac{1}{10}$
Creosoti ... gr. $\frac{1}{2}$
Ext. gent. q.s. ut ft. ... gr. iv.

Ft. pil. Mitte xxx. Varnish.

Pil. rhei co. ... gr. iij.
Mitte xvij. in fol. arg.

Emp. belladonnæ ... 8 × 10

JULY.

Pot. permang. ... gr. iss.
Ft. pil. Varnish. Mitte xxiv.

Hyd. ammon. ... gr. 30
Paraf. dur. ... 3ij.
Paraf. mol. ... 3vj.

Ft. ung.

Hamamelin. ... gr. j.
Ol. theobrom. ... q.s.

Ft. suppos. Mitte vj.

Ol. ricini ... 3j.
Ol. tereb. ... 3vj.
Tr. card. co. ... 3ij.
Aq. menth. pip. ad ... 3vj.

M. $\frac{1}{6}$ &c.

Make 3x. of a solution of hyd.
perchlor. to contain 2 per cent.

WRATZ. (69/58.)

* * * *

The examiner I was under in July could not have been more courteous and obliging. When I asked him for anything he pointed it out, and, if I could not find it "at once," got up from his chair and came and got it for me, and he did the same for every candidate in the room. I do not think an examiner can do more. Of course they vary in temperament, but, with hardly an exception, they do their best to make a candidate feel at home. As regards the prescriptions set you, as a rule they are nothing more than you would get in the ordinary routine of business, but, of course, as in the latter case, require care and attention. I append my own paper (the first four) and a few others, all of which are, I think, perfectly fair prescriptions to judge of a man's capabilities.

(1) Lotio plumbi fort. Oss.

(2) Bland's pill ... gr. iv.
Mitte xxiv. Varnish.

(3) Pot. iod. ... 3j.
Mist. ferri co. ad 3vj.

(4) Emp. bellad. ... 5 × 4

(5) Sol. hyd. perchlor. 4%
Mitte 3iv.

(6) Emp. menthol. ... 4 × 3

(7) Menthol. ... 2%
Adip. præp. ad 3j.

(8) Inject. morph.
hypoderm. ... 3ss.

(9) Pot. iod. ... 3j.
Liq. Donovanii ... 3j.
Liq. strychnin. ... 3j.
Liq. hyd. perchlor. 3j.
Syr. aurant. ... 3iv.
Inf. aurant. co. ad 3vj.

You have to make 3j. liq.
Donovanii and your own inf.
aurantii co.

(10) Suppos. acid. tannic. vj.

(11) Suppos. plumbi co. vj.

(12) Suppos. morphinæ cum
sapone. vj.

(13) Syr. ferri phosph.
Mitte 3iv.

(14) *Syr. ferri iodid.
Mitte 3iv.

SCRIVEN. (70/6.)

EDINBURGH (OCTOBER).

The eventful morning having arrived, I made my way to York Place, Edinburgh. Round the door I found some thirty of my fellow-victims. Some seasoned hands were lecturing the novices on the necessity of keeping cool. One gentleman, in particular, strongly advocated the eating of humble pie. Word was passed round to look out for chromates, silica, and tannic oxide from Professor Gibson, and peroxide and borate of barium from Mr. Jack. At last the door opened, and we passed in and signed our names.

I found myself amongst those who had "to come this way for pharmacy" under the care of Mr. Mabon. My pharmacy paper I give in full:—

Bismuth. subnit. ... gr. iss.
Pepsin. ... gr. iss.
Quin. sulph. ... gr. j.
Strech. ... gr. $\frac{1}{10}$
M. et ft. pil. Mitte tales xxiv.
Sig.: I. nocte et mane.

Bismuth. cit. ... gr. 160
Liq. ammon. ... q.s.
Aq. ad ... 3iv.
M.

Sig.: 3j. more dicto.

Acid. salicylic. ... 12%
Zinci oxid. ... 8%
Acid. boric. ... 9%
P. erect. gall. ad 3ij.
M.

Quin. sulph. ... gr. iss.
Antifebrin. ... gr. x.
Ft. pulv. Mitte xij. Cachets.

Ext. opii ... gr. 4
Ol. theobrom. ... q.s.
Ft. sup. Mitte sex.

After carefully reading this exceptionally easy paper, I set to work, and in due course wrapped and handed over the finished articles. Everything turned out fairly well, excepting the cachets, which I had put into too small a box, the result being that some were burst.

Returning at 2 o'clock for chemistry, I was entrusted to Mr. Jack. First thing I got was the specific gravity of a liquid. The rider on my balance seemed to be possessed, it having a marked objection to sitting on its proper place. After some little persuasion it at last agreed to remain perched on its proper position. After the specific gravity came the estimation of a solution of KBr. I took much care with this—so much so that just as I was finishing the mellifluous voice of Professor Gibson rang out, "Three-quarters of an hour, gentlemen." In despair I plunged my platinum-wire into my first salt, which, in the bunsen, gave a beautiful green. This gladdened my heart. After twenty minutes' careful search I found my salt to be borate of barium. I handed in a full report, covering nearly two sides of the book supplied. This is an important matter. Record results as you get them, and give a good report. The next salt was in white, deliquescent crystals, which I found to be thiosulphate of potassium. Mr. Jack told me I had done well, and that I might clean up my bench and go.

At 1 o'clock, three days after the first day, I presented myself again. We sat on the same chairs, listened to the same names being called over—with, alas! many blanks. The Chairman, Mr. Ewing, sent us off to our respective subjects. Materia medica was my first, with Mr. Mabon as examiner. I was first asked to name the specimens shown me. They consisted of digitalis-leaves, conium-fruit, opium, fennel, belladonna, &c. Coto was there, too, which I, of course, said was sassy. It is infallible! If there are but two things you know it must be you invariably spot the wrong one. Then a few habitats were asked, and the chemistry of the more important drugs such as ipecacuanha.

I next crossed swords with Professor Gibson at the chemistry-table. Water was his theme. "What is the formula for water?" was the first question, asked in a serious voice. The Professor did not seem to think my word good enough, for he then demanded proofs. These having been laid before him, he seemed to be satisfied that H₂O was really the formula. [But, is it?—ED.] Then came a few isolated questions, such as the result of treating iodic acid, phosphorous acid, &c. "That will do!" were then the comforting words that came from the Professor's lips.

My next subject was pharmacy. I had the pleasure of half-an-hour's conversation with Mr. Nisbet over this interesting subject. Mr. Nisbet was strong on opium. I was prepared for this. Then ext. cinchon. liq., ext. nucis vom., preparation of green extracts, ext. filicis mas, santonin, glacial acetic acid, &c. Over the discussion of glacial acetic acid Mr. Nisbet showed me that he was still a member of the old school.

Botany next. I had been told that to be able to spot the slides at botany was almost everything. This I was able to do. They were a section of leaf of *Ficus Carica*, showing cystoliths, and a transverse section of polystelic stem. Professor Balfour then gave me one or two flowers to classify. An explanation of the fruit of the dog-rose was then asked for. After a few more similar questions I was passed on to the funking form.

My last subject—prescription-reading—I found easy. Mr. Lunan was the examiner, and he has a strong affection for doses. I was asked twenty or thirty, a "catch" question being, "What is the dose of liq. hyd. pernit.?" which, of course, is not given internally. With a sigh of relief I found myself finished. Then came the glad tidings in measured tones from the Chairman, "You have passed. Come back at 5 o'clock for your certificate."

I may state here that I found the examination not so bad as I had been led to believe, and the examiners not the fiends they are represented to be.

W. S. (67/36.)

* In such cases the preparation has to be made.—ED. C. & D.

Correspondence.

In writing letters for publication correspondents should adopt a concise, but not abbreviated, style. They are requested to write on one side of the paper only. Letters, with or without a nom-de-plume, must be authenticated by the name and address of the writer.

Notice to Correspondents.

Queries should be written on separate pieces of paper, and the regulations printed under the sections to which they apply should be strictly observed.

American Pharmaceutical Degrees.

SIR,—Accept our appreciation for your criticism on page 454 of your issue of September 10. I may add to your statement on degrees that, beginning with the session of 1899, the faculty expects to add a third-year course, leading to the degree of Ph.M., &c. Personally I regret the multitude of degrees. Conditions, however, force this institution at the present to follow suit. Pharmaceutical education is a rather delicate issue. We have (1) dispensing pharmacists, (2) manufacturing pharmacists, and (3) analytical chemists with the various fields of specialisation. These three terms eliminate ambiguity of meaning. It is my earnest belief that there should be but one degree designating a finished education for the dispensing pharmacist. As a standard of competency in the profession, no degrees designating two classes ought to exist, consequently but one title, which always signifies a finished course in pharmacy.

The requirements for a dispensing pharmacist should be: (1) A preliminary education including commercial branches; (2) store-experience (apprenticeship); (3) assistantship; (4) the final education. During the apprenticeship, or after, there should be required an attendance at a night or afternoon school to acquire: (a) Knowledge of what may be termed pharmaceutical physics; (b) a finished knowledge on non-metallic and metallic elements from a pharmaceutical standpoint, a comprehension and intelligent execution and interpretation of the pharmacopoeial tests, in so far as they refer to inorganic chemistry; (c) botany, organography, &c., identification of fresh specimens; (d) pharmacognosy, in order to recognise and describe the characteristics of drugs.

In addition to the foregoing it would be useful to acquire some knowledge of zoology and mineralogy. Examinations in the various branches should be eminently practical. A successful compliance with the requirements of such examinations should entitle the applicant to a certificate designating his competency as an assistant. Now comes the critical stage. I deem it as essential that the aspirant for pharmaceutical honours should be required to serve two or three years as a clerk. During this period he or she can determine whether to push on or drop out from the thorny road to be a competent pharmacist, with the title of Ph.G. or Ph.M. obtained after another six or ten months' all-day attendance at a college.

Most respectfully yours.

J. ROBT. MOECHEL, Dr.Phil.

Kansas City College of Pharmacy, September 21.

Mr. McKnight's Quotation.

SIR,—I took my quotation from the President's address as it was read by the Registrar, and wrote it from memory twenty-four hours afterwards. It is as follows: "That cyanide of potassium was purchased by a man at one of the branches of the Ulster Chemists (Limited), who was not registered according to law." Mr. Downes's address, as published, reads: "An apprentice sold for them—i.e., the Ulster Chemists (Limited)—cyanide of potassium without conforming with the requirements of the Poisons Act."

If Mr. Downes sees any difference in my quotation from that in his published address other than the construction of the sentence, I am very sorry for him. Both, to my mind, convey the same meaning.

I am rather surprised that Mr. Downes again refers publicly to this matter, as he cannot surely have forgotten the conversation Mr. S. Gibson and I had with him the morning after the annual meeting, when we gave him the

true facts of the case as contained in my previous letter. Mr. Downes then stated that he had been informed that the poison had not been registered, and therefore he placed the matter before the Attorney-General, and had induced Mr. Field to ask a question about it in the House of Commons.

My object in writing to you at all was to stop a wrong impression that might get abroad through the absence of a correct version of the case.

The Ulster Chemists (Limited) are well aware of the requirements of the Poisons Act, and they recognise their responsibility for the public safety. Had our managers been lax in this respect the company would have been caught on two separate occasions recently. A young girl entered our Ballymena branch, asked for a pennyworth of arsenic, and was refused. She went to another chemist in the town, where she got it, and "subsequently ate" it. A few days ago a man under the influence of drink entered our Derry branch, asked for twopennyworth of strychnine, and was refused it. He went to a pharmaceutical chemist in the city and purchased a pennyworth, which he "subsequently ate."

These accidents may occur in the best-regulated establishments, but Mr. Downes singles out the Ulster Chemists (Limited) for attack, because, he says, this company is his enemy. Mr. Downes surely should be more generous to his enemy.

Yours truly,

R. W. MCKNIGHT, M.P.S.I.

Carlisle Circus, Belfast, October 15.

The Minor Examination.

SIR,—In the interests, not only of candidates for the Minor, but of the trade generally, I trust you will follow up your inquiries into the subject of the questions set at the examinations, both in London and Edinburgh. I have no hesitation in saying that if the dispensing problems (or puzzles) you print were ever really given, the fact is nothing short of a scandal, and there are a good many of us who would apply this epithet to the whole examination as it appears to have been conducted recently. Upon the assumption that it is the aim of the examiners to keep as many men as possible out of the legitimate trade, and to drive them into the ranks of our most dangerous rivals, their tactics are admirably successful, and will, doubtless, earn the approval of the Society which employs them, apparently, for that end. You report that of 268 candidates who presented themselves in London last month only 66 succeeded in passing. Does any other professional examination show similar results? And are we asked to believe that candidates for the Minor are so vastly inferior, as these returns would seem to show, to those for the Medical and Law examinations? I do not believe they are, and I am not without opportunities for judging. But be this as it may, the requirements of the examiners now are monstrously out of proportion to the needs of the case, though possibly the explanation may not be the one I have just suggested. Foiled in the attempt to force a curriculum upon us, the Society may now aim at bringing the private schools into contempt, in the hope that the way may be so prepared for the receptance of their pet scheme of an enforced term in their own schools. Whatever their object may be, however, it certainly is not the good of the trade generally, unless they are smitten with judicial blindness.

Yours, &c.,

AN OLD FASHIONED CHEMIST. (68/71.)

SIR,—Your correspondents respecting the dispensing department of the "Minor" examination cannot fail to impress those who practise that art to any large extent with considerable distrust as to the fairness of the work given candidates. For years complaints have been made and little attention paid to them. The list of prescriptions given by "Duke St. Lane" is characteristic of the ultra-pharmaceutic view of dispensing these specialists hold. Not 90 per cent. will ever see any to equal them as long as they remain in pharmacy, and no earthly use can be served by insisting on candidates wasting their time on work which is of no practical importance. The examination should undoubtedly be a searching one and contain ordinary difficulties, but it is absurd to include all the curiosities of modern prescribing; these can be met as occasion demands. It is quite possible with ordinary and likely prescriptions to judge the kind of man you have, and you may be perfectly certain,

if he has a sound knowledge of the allied sciences, he will have little difficulty in mastering most prescriptions should he be fortunate enough to get any.

It has been said that a nervous man cannot be a good dispenser, and that must be taken into account in the examination-room. That may be true to a certain extent; but a man must be very cool and collected to work out the calculations such as appear in the prescriptions in your last number. They may not be difficult for us when in our own dispensaries; but it is quite a different matter when one is working before an over-zealous and, probably, at times prejudiced examiner.

I am, Sir, yours faithfully,

London.

G. R. (70/2).

[Contributions on this subject from candidates are printed on preceding pages. We comment upon the whole matter elsewhere.—EDITOR.]

Slow Photographic Dealers.

SIR,—In these days, when retail dealers are straining every nerve to meet customers and get business, it is very refreshing to find wholesale houses above all that sort of thing. Your correspondent, "N. O. D.," complained lately that even a 200% or 300% order could not disturb their restfulness. May I now illustrate how they regard a mere 5% order?

In the course of trying to get a connection in photographic goods I sent to a customer a copy of a handsome price-list and a box of specimen mounts received from a firm which advertises in your columns. He was very pleased, sent an order, and gave me ten days to get the goods. I made up the order to a fair trial lot, and despatched it cheerfully. Five days later I wrote a reminder; ten days later got the invoice, with a heavy list of "remainders," and wrote remonstrating. No reply. Waited a week, and wrote for particulars of route, to make inquiries from carriers. No reply. Telegraphed same query. No reply. Wrote protesting strongly, and at last learnt that the parcel had been sent *via* Penzance and half-a-dozen other ports of call to Bristol, to be forwarded by Wexford. Wrote suggesting that *via* the Orkney Islands was an equally cheap and speedy route to Bristol, especially for goods in a hurry.

My customer has got his mounts elsewhere, and will never give me a special order again. My substance is consumed in stamps and telegrams, and my temper is quite ruined. I could have had the urgent lines repeated by parcel-post (which would have absorbed the profits but "saved my face") had I known how the stuff was consigned when I ought to have known. But I had run up unawares against the best traditions of London wholesalers—the good old "you-be-d—d" English mercantile attitude—and could get no answer to letters.

Now I am ordering from a German firm in London, and expect their goods to hand before my order of a month since is round Land's End, where it seems to be at time of writing. Is it not a defect in our code that stupidity does not constitute ground of action?

Yours, &c.,

Arklow, Ireland.

H. C. ROWE.

Mr. Rymer Young's Address.

SIR,—Permit me a short criticism of Mr. J. Rymer Young's admirable address at Sheffield, so well reported in your last issue. In my opinion his advice is eminently unpractical. To start with taking an apprentice, you cannot get one quite of the same stamp as formerly, because his prospects are so much less hopeful. With the majority of chemists, especially in large centres, the conditions of apprenticeship are so severe, and the examinations are also (rightly) comparatively severe, so that a large proportion go up for examination who are not exactly free agents. Many who get through cannot afford to commence business, and therefore go out for experience and to save the needful. The question arises, Shall they go into good-class pharmacy at a low salary, where they will get experience of doubtful utility in after-life, or shall they go to the smart druggist or the drug-store, where they may expect to sharpen their faculties and line their pockets at the same time? Is it fair to lay the blame on these youths' shoulders?

But what becomes of the plucked men and those who never go far enough to go up? Without qualification their market-value is so little that they can make more by opening a small shop in a well-populated district, where they pose as chemists, and to all intents and purposes act as such.

Again, it is now made infamous for a doctor to have an unqualified assistant. Well, our youths must have refuge. What simpler than opening a drug-store, where they prescribe and soon cannot be distinguished by the general populace from qualified chemists? I know, from my own observation over a wide district, that as many act as chemists unqualified as qualified.

These are the facts existing, and they indicate radical disease, which can only be cured by bold treatment. Why not, then, bury the hatchet, settle what it is we need, and go for it? The surgeon does not argue as to what might have been done twenty or thirty years ago, or even this year (I refer here to the evident disinclination of some journals to look facts squarely in the face); he is not concerned as to whose fault it is. No; he takes the disease as it is, and according to the desperateness of the case so does he act. He even sometimes does not despise the kill-or-cure remedy.

Yours truly,

THE COMMON OR GARDEN CHEMIST. (71/12.)

Careful Subscribers.

SIR,—We have always admired the liberal inside margin you allow the pages of your publication THE CHEMIST AND DRUGGIST—a matter in which many others are so stingy. As we cannot afford to bind the half-dozen or more scientific papers we get in any better fashion, we find it extremely convenient, as permitting of easy and agreeable reference to the several numbers, when joined together by the simple process of "stabbing."

The literary matter of the *C. & D.* (and frequently the advertising-pages) is thus secured every week when done with to that which has preceded it, until at the completion of the volume, which brings with it your unusually prompt issue of the index, we are able, with the assistance of the stationer, who trims two of the edges with his guillotine, and at a minimum of trouble and expense, to mount the volumes in what we consider a sufficient and satisfactory way for future reference.

C. (59/37.)

The Opticians' Examinations.

SIR,—In reference to the inauguration by the Spectacle-Makers' Company of examinations for diplomas for opticians which, it is said, sooner or later will be compulsory on all who call themselves opticians, I presume no one quarrels about that; but what about those who are now practising as such in however small a way? You have fought battles for chemists and druggists in connection with the Dental and Veterinary Acts, and I think you might do good service in watching their interests in this line also.

Why should it be necessary for me to have been practising for seven years to claim the right to sit for the Modified examination as an optician? I claim the right, as I did for dentistry, by virtue of being registered, which registration ought to be allowed to all who have been practising for three months. I am in years now, but would gladly tackle the subjects if the theoretical were not enforced or too much expected.

I hope chemists who are interested in the question will vent their opinions that concerted action may be taken to induce the Company to relax the stringent examination which will exclude those who have not been favoured with opportunities to prepare for such an ordeal, but who would wish to prepare for an examination of a simpler nature and ally themselves to such a useful Company.

Yours truly,

October 11.

KENT. (63/38.)

Dispensing Notes.

Quinine Salicylate Again.

SIR,—I tried several ways of dispensing the following mixture, the method I found to answer best being to neutralise the sweet nitre, dissolve in this the quinine, and

mix with the solution of the salicylate of soda, previously mixed with mucilage. Was this method right?

Sodii salicylat.	...	...	...	℥iv.
Quin. sulph.	...	...	...	℥j.
Spt. æther. nit.	...	...	...	℥j.
Mucilaginis	...	...	...	q.s.
Aque ad	...	...	...	℥viij.

M.

Yours truly,
ASSISTANT. (47/64.)

[The method was quite correct.]

SIR,—I had the following prescription to dispense. A flocculent precipitate is thrown out, which adheres to the sides of the bottle. How should it be dispensed?—

Sodii salicylat.	...	...	...	℥j.
Potass. bicarb.	...	...	...	℥ij.
Tr. quinin.	...	...	...	℥j.
Syr. zingib.	...	...	...	℥ss.
Aq. ad...	...	...	...	℥viij.

Yours, &c.,
QUININE. (42/28.)

[The addition of mucilage is necessary to evenly suspend the salicylate and quinine.]

An Injection.

SIR,—I would like to know the proper method of compounding the following prescription, what the appearance should be, and also what the chemical reaction is:—

Hydrarg. perchlor.	...	...	...	℥j.
Spt. vini meth.	...	...	...	℥iij.
Tr. iodini decol.	...	...	...	℥iij.

Ft. inject.

Yours truly,
MEMO. (43/50.)

[The result varies with the nature of the tr. iodini decol. Will some of our readers see what they can make of this?]

The Prescriber's Intention.

SIR,—The following prescription was recently handed to me to dispense:—

Tr. benz. co.	...	...	...	℥iv.
Spt. ammon. co.	...	...	...	℥ss.
Glycerin.	...	...	...	℥ss.
Tr. camph. co.	...	...	...	℥xij.
Aq. ad...	...	...	...	℥vj.

℥j. t.d.s.

The physician obviously intended to write "ad ℥j." Would the chemist be justified in making the alteration on his own responsibility, or should he first mention the matter to the prescriber?

PRX. (69/16.)

[If the prescriber is a local man, it would be well to send round and ask him, although there is not much room for doubt as to his intention. If you cannot see the doctor, make the alteration and mark on the edge of the prescription.]

Borax, Mucilage, and Glycerin.

SIR,—I have noticed with interest the correspondence regarding the borax-and-mucilage mixture, and note that none of your correspondents take advantage of the fact that a trace of glycerin will render a mixture or solution of borax and water compatible with mucilage.

In the mixture referred to I made a satisfactory product by dissolving as far as possible the borax in 4 oz. water, adding ℥j. glycerin; then added mucilage, and, finally, the aq. chloroform., sodii brom., and ext. ergot. mixed together.

Yours truly,
CANUCK. (67/16.)

Toronto, Ont., October 7.

[This is, of course, due to liberation of boric acid by the glycerin, and, as previously explained, free acid appears to prevent the gelatinisation of the mixture. "Canuck's" point is a good one, nevertheless.]

Legal Queries.

We do not give legal opinions by post. Information regarding most legal matters in connection with pharmacy will be found in THE CHEMISTS' AND DRUGGISTS' DIARY, and in "Pharmacy and Poison Laws of the United Kingdom," and Alpe's "Handy-book of Medicine-stamp Duty."

70/51. C. W. S.—We think all the labels you send render the medicines liable to medicine-stamp duty, except that for diarrhoea-mixture and sarsaparilla. But we advise you to send them all to Somerset House and get an authoritative reply. You will find instructions in the DIARY.

68/4. Sauce.—The name of the article, with your name in the possessive case, would probably be accepted by the Registrar as a trade-mark; but that would not prevent another person from using the same designation with his name. We should think it doubtful whether you could get registration for the name of the article alone. It would cost you 5s. to make application.

64/69. G. B.—We are afraid we do not understand the case you submit. If the employers gave you a cheque for three weeks' wages, on the understanding that you were to provide a substitute for the three weeks while you were away, and you only engaged a substitute for two weeks, doing the third week's work yourself, you cannot expect them to pay for that third week again.

72/17. F. W. S.—We have told inquirers dozens of times that they are unwise in declining to accept their third of the sample when drugs are taken for analysis. They deprive themselves of the best chance of defence they have. The new B.P. has been recognised in adulteration-prosecutions several times lately, and we do not see why it should not be.

72/4. Receipt.—You do not require a stamp for selling a written recipe.

68/59. Paregoric.—Under ordinary circumstances a chemist is not legally bound to sell any drug or dispense a prescription when demanded. But it is specially provided in the Sale of Food and Drugs Act, that a medical officer of health, an inspector of nuisances or inspector of weights and measures, or a police constable acting under the instructions of a local authority, if he shall tender the price for any reasonable quantity of an article on sale which he may want for analysis, must be supplied, or the trader refusing renders himself liable to a penalty of 10%.

70/61. Excelsior.—It is not necessary to employ a solicitor to register a limited company, but as you seem to know nothing of the proceedings it would probably be prudent on your part to do so. If the information given in the DIARY is not sufficient for you, you might get a little book on "The Law of Joint Stock Companies," published by Effingham Wilson, Royal Exchange, London, 1s. 6d.

Miscellaneous Inquiries.

We reply to subscribers and their employes only upon subjects of interest to other readers generally. When more than one

query is sent write each on a separate piece of paper. When a sample accompanies a query full particulars regarding the origin and use of the sample must be given, and it must be distinctly labelled. Queries are not replied to by post, and those sent anonymously are disregarded.

48/34. Acetone.—(1) Lieben's Test for Acetone is applicable to urine. A little of the urine is distilled, and a few drops of an aqueous solution of potash and iodine added to the distillate, when iodoform is precipitated if acetone is present. Gunning employs ammonia and a solution of iodine in iodide of ammonia. The test is very delicate, and is said to be sensitive to a hundredth of a milligramme. (2) Legg's "Examination of the Urine" (Lewis), 2s. 6d., or Scott's "Manual of Urine-testing" (Baillière), 1s. 6d.

36/19. *A. J.*—There is a large number of good formulas for curry-powder and chutney in "Pharmaceutical Formulas." We published one for the former in the *C. & D.*, September 24, 1898, page 530. Here is a good Chutney recipe:—

Apples or gooseberries	...	...	2 lbs.
Tamarinds	...	...	1 lb.
Tomatoes	...	...	1 lb.

Bake with a little water, pass through a sieve, and mix with—

Raisins	...	...	4 oz.
Sugar	...	...	$\frac{1}{2}$ lb.
Salt	...	...	$\frac{1}{4}$ oz.
Bruised mustard-seeds	...	...	1 oz.
Powdered cayenne	...	...	$\frac{1}{4}$ oz.
Powdered cumin	...	...	$\frac{1}{4}$ oz.
Powdered mace	...	...	$\frac{1}{2}$ oz.
Powdered mint	...	...	$\frac{1}{2}$ oz.
Tartaric acid	...	...	1 oz.
Tincture of asafetida	...	...	$\frac{1}{4}$ oz.

36/32. *W. J.*—(1) Negative-varnish.—Carey Lea's formula is good:—

Bleached shellac	...	...	3 oz.
Sandarac	...	...	1 oz.
Spirit	...	...	24 oz.

Dissolve, add some prepared chalk, filter bright, and add—

Oil of lavender	$1\frac{1}{2}$ oz.
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(2) Retouching-medium:—

Sandarac	1 oz.
Castor oil	80 gr.
Spirit	6 oz.

(3) Spotting on negatives is done with any opaque water-colour, such as vermilion; spotting on prints with mixtures of vandyke brown, madder, and raw sienna in proportions according to the colour required.

33/52. *Curious.*—The Diarrhoea-mixture used with remarkable success apparently owes its efficacy to 10-drop doses of dilute sulphuric acid.

32/5. *T. P.* (Alexandria).—The sample of Hair-lotion which your friend has found to prevent his hair falling when many other lotions were useless is in composition as follows:—

Solution of soda	...	...	5ij.
Tincture of cantharides	...	...	5ij.
Distilled water	...	...	5viij.

Mix.

A little perfume would improve it.

47/67. *Glance.*—The old Nervine Balsam is what your customer requires:—

Oil of mace	...	...	5iv.
Beef-marrow	...	...	5iv.

Melt, and add—

Oil of cloves	...	...	5j.
Balsam of tolu	...	...	5ij.
Camphor	...	...	5j.
Rectified spirit	...	...	5iv.

29/9. *Ferrum.*—Your customer's query is too mysterious. Tell him to be more explicit.

61/50. *Jack.*—You are hard to please if you cannot find a suitable cough-mixture among the numerous recipes in "Pharmaceutical Formulas." Try the following, which is suited for both adults and children, and contains no scheduled poison:—

Raspberry Cough-syrup.

Ext. ipecac. liq.	...	...	5j.
Syr. scillæ	...	...	5ij.
Succ. conii	...	...	5iss.
Glycerin.	...	...	5ij.
Ac. citric.	...	...	5ij.
Ess. rubi idææ	...	...	5ij.
Liq. cocci	...	...	5iv.
Syrup. ad	...	...	Oj.

Adult dose, 1 to 2 teaspoonfuls; children, 20 drops to a teaspoonful.

29/9. *Black Ink.*—(1) Rubber-stamp inks, being generally made with aniline colours, are not permanent when exposed

to direct sunlight. To stand the light, inks made with mineral colours are necessary. For this purpose ultramarine, Paris blue, verdigris, and vermilion are used, mixed with glycerin. (2) For rubbing up the mahogany shop-front, and as a protection from the weather, the best polish to use is a solution of shellac (4 oz. in a pint of spirit). It is applied with a rag, after the manner of French polish.

62/1. *Novice.*—To Prevent Fermentation in non-alcoholic wines they should be pasteurised and a preservative (10 gr. of sodium metasilphite per gal.) added.

56/64. *Verus.*—To Make a Non-excisable Beer the quantity of sugar must not exceed 4 oz. per gal., any other sweetening desired being supplied by saccharin. Reckon 25 gr. of saccharin as equivalent to 1 lb. of sugar.

61/68. *Taylawn.*—"The Farmers' Veterinary Adviser" (Jack, Edinburgh), 7s. 6d., will probably suit your customer.

61/74. *J. T.*—(1) Blessed Thistle is *Carduus benedictus*. (2) The colours of the cloth will of course fade on exposure to sunlight if they are not "fast," and, as far as we are aware, there is no dye on earth which will stand the sun for three months without fading.

55/70. *Apiary.*—A lump of naphthol is placed in beehives for the purpose of preventing disease among the bees.

62/14. *Rex.*—*Spiritus Saponatus Kalinus.*—See THE CHEMISTS' AND DRUGGISTS' DIARY, 1897, page 482, or "Pharmaceutical Formulas," page 597.

50/16. *C. G. W.*—The simplest way of estimating the camphor in camphorated oil is to take a known weight of the oil, heat on a water-bath till all the camphor is volatilised, allow to cool, and weigh. The difference in the weights gives the quantity of camphor.

58/19. *Hamble.*—We have no formula for soup-powder.

55/66. *H. W. G. M.*—Pessary-moulds are obtainable from most of the sundries-houses, some of whom are makers.

49/61. *Ireland.*—It is not easy replying to you. We like to make this section of the paper interesting, not only to those who ask the questions, but to others, because we know that for the one who asks there are hundreds who read. It is a pity, therefore, to deny them the pleasure which they would doubtless derive from perusing a formula for an Embrocation for Rheumatism and general external use, which formula contains ten ingredients, including free iodine, alkali, camphor, cod-liver oil, wax, and soap-liniment. We are not giving you away with these facts, but we strongly advise you not to make the formula a speciality. Take away everything from it except the following:—

Camphoræ	...	...	5j.
Ol. terebinth.	...	...	5ij.
Lin. saponis	...	...	5iss.
Liq. ammon.	...	...	5ss.

M.S.A.

This will stand dilution, preferably with a solution of 1 oz. of soft soap in 2 oz. of spirit and 6 oz. of water. As to the mixture for constipation, if you take from it the spt. ammon. arom., sodii salicyl., pot. iodid., pot. bromid., and pot. bicarb., you will not in the least decrease its efficacy as a liver-stimulant, and will decidedly improve its peristaltic power, as the seven ingredients which remain are, taken altogether, an effective and rational combination.

Information Wanted.

The Editor will be obliged for replies to the following from any who can furnish the information.

68/5. Address of large maker of oleic acid.

70/12. Where can "ground garlic" be obtained?

We are in debt to Mr. M. T. Harders, late of Pine Street, Philadelphia, U.S.A., and Mr. A. Ingham, Manchester, and want their present addresses.

Trade Report.

Notice to Retail Buyers.

It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk, and, for crude drugs, without charges. For fuller particulars see the article "Lowest Trade Terms" in THE CHEMIST AND DRUGGIST, March 19, 1898, p. 473. C.i.f. quotations are for London unless when otherwise stated.

Buyers of essential oils are particularly requested to note that low quotations, especially for Sicilian essences, are rarely, if ever, accompanied by guarantee of genuineness.

WHOLESALE druggists and chemical-manufacturers are busy, and there has been more doing in the produce-trade, also inquiries which are likely to lead to business in the near future. Iodine is interesting at present, but with little if any prospect of an immediate change in values. Ergot has been booming this week owing to the small crops. Ipecacuanha maintains its value. The following are the week's movements:—

Higher	Firmer	Lower
Copper sulphate	Cream of tartar	Acid, citric
Ergot of rye	Ipecacuanha	Acid, tartaric
Fenugreek	Oil, castor	Ammonia sulphate
Jalap	Pimento	Oil, peppermint
Oil, rape	Turpentine	(Amer.)
		Oil, star-anise
		Pepper
		Potash, permang.
		Shellac
		Turneric

Jalap in India.

We learn from the report of the Saharmpore Botanic Gardens that the jalap-plant has again been a failure at the Arnigadh garden, where the soil and climate may now be admitted as unsuited to it.

Otto of Rose.

The latest adulterant of otto of rose is the essential oil of guaiac-wood (*Bulnesia Sarmienti*, Love). Bulgarian law does not permit the importation of geranium oil, and some distillers, at their wits' end for some sophistication, have lighted upon this. It has a pleasant tea-like odour. Schimmel & Co. have called attention to the matter.

Java Quinine.

We commented last week upon the report of U.S. Consul Everett on the quinine-industry in Java, in which the value of the shipments from that island to the United States was estimated at \$11,395,055. We now find, from the original report to hand this week, that it is as we surmised—Mr. Everett's figures had got mixed, the declared value of the quinine shipped being \$11,395 55. The report also contains extracts from a letter written by Mr. Sijthoff, manager of the Java quinine-factory, in which he predicts a rosy future for the Java product. He says the factory is now producing 90 to 100 kilos. (3,150 to 3,500 oz.) of quinine per day, which is sent to America, England, Amsterdam, Straits Settlements, Hong-Kong, Japan, and Australia. The factory buys no bark, but works the bark for a commission of 7½. per kilo. (4½. per oz.) of quinine, the proceeds going to the planter.

The Position of Iodine.

The market for iodides is unchanged, but there has been considerable inquiry from abroad during the past ten days, owing to the isolated sales below Convention prices which we reported last week. There is no movement on this market, but the agents of Japanese chemical-manufacturers

have been feeling the pulse of the trade here, amongst the products offered being iodoform, and it is believed that the advent of Japanese iodine upon the European market is not far distant. The present offerings appear to be a feeler, and as the Japanese had a hard fight with the Convention for their own market a few years ago, they will be the worst competitors should they come here. Meanwhile, the greater number of the firms constituting the Convention are endeavouring to have it renewed. It will be remembered that the agreement came to an end on March 31, 1897, but it was immediately renewed for a term of three years. Meetings have been held in Iquique recently, to discuss preliminaries of a new combination. Out of fifty-nine nitrate-producers, forty-six attended the meeting, and forty-five of these gave their adhesion to the new proposal. Amongst the fourteen who have not so far agreed to the proposals are some important firms who object as much to the idea of a combination as to fix the production of the various firms who would form the ring. In spite of all that the majority have been able to do, they have so far been unable to talk the malcontents over. The only effect that this can have upon the market in the meantime is purely moral; there is always non-Convention iodine floating about in small lots at rates a farthing or so per oz. below Convention prices, and they help to keep the Convention rates from going up. The real danger to the Convention is a split in itself, whereby the enormous stocks of iodine available and potential would be thrown upon the market, and that seems to be the position towards which the South American manufacturers are now shaping.

Arrivals.

The following is a list of the principal drugs which have arrived in the port of London and other large ports in England from September 24 to October 19, both inclusive. The figures indicate the number of original packages (bales, casks, &c.) :—

Aloes, Cape	52	Oil, castor (Ital.)	20 ² / ₇
Aloes, Curaçao	10	Oil, cinnamon	3 ¹ / ₂
Annatto	112	Oil, citronella	35
Asafetida	174	Oil, cod-liver	44 ² / ₅
Balsam, copaiba	19	Oil, eucalyptus	42
Benzoin	39	Oil, lemongrass	10 ⁰ / ₁₀
Buchu	11	Oil, limes	11 ¹ / ₂
Camphor (Jap.)	584	Oil, nutmeg	12
Caraway-seed	335	Oil, olive	89 ⁵ / ₅
Cardamoms	1069	Oil, orange	3
Castorum	3	Oil, patchouli	1
Chamomiles	32	Opium (Turkey)	182
Cinchona	759	" (Per.)	27
Cocaine (crude)	6	" (Indian)	34
Croton-seed	6	Orris	31
Dragons-blood	22	Pepper	844 ⁹ / ₉
Fenugreek-seed	660	Phosphorus	30
Gentian	151	Quicksilver	600
Guarana	5	Quillaia	245
Gum arabic	1920	Quinine	89
Gum (Trieste)	75	Rhubarb	168
Gums (Persian)	708	Sandalwood	207
Honey	160	Sarsaparilla	80
Insect-flowers	37	Scammonium	8
Ipecacuanha (Cart.)	14	Senna	1040
Kola (W.I.)	53	Squills	26
Lime-juice	341	Sulphur	2440
Liquorice-root (Prsn.)	3018	Tamarinds (W.I.)	5
Manna	7	Tonca-beans	33
Musk	6	Turmeric	191
Nux vomica	24	Vanilla	10
Oil, cajuput	12	Wax, bees'	670
Oil, castor (E.I.)	597	Wax, Japan	50
Oil, " (Fr.)	210		

Heavy Chemicals.

A fairly steady and satisfactory business continues to be done in heavy chemicals, and there are few changes of special moment to be recorded. Chlorates keep a very firm tone, and sulphate of copper, too, is firmer with increased inquiry.

BROWN ACETATE OF LIME.—In good inquiry, and price tends firmer, and at present stands about 5½. 7s. 6d. to 5½. 10s. c.i.f.

CREAM OF TARTAR.—Firmer; best white, powdered, 73s.; and crystals, 71s.

SALTPETRE.—Unchanged. British refined, barrels, 19s. 6d.; and kegs, 20s. 6d. German barrels, 18s. 6d.; and kegs, 19s. 6d.

BORAX AND BORACIC ACID.—Fairly steady. Crystals, 14s. and 23s.; and powdered, 14s. 6d. and 25s. respectively.

BICHROMATE OF POTASH.—3½d. less 3½ per cent. for Scotch and English deliveries, and 3½d. net, f.o.b. Glasgow, for export.

BICHROMATE OF SODA.—2½d. less 3½ per cent. for English and Scotch deliveries, and 2½d. net, f.o.b. Glasgow, for export.

MAGNESIUM SALTS.—In good inquiry, and prices steady. Carbonate, 37s. 6d. to 40s. per cwt.; calcined magnesite, 1s. 1d. to 1s. 4d. per lb. Sulphate (Epsom salts), 2l. 12s. 6d. to 2l. 17s. 6d. per ton. Chloride, 2l. 10s. per ton. Magnesite, lump, 40s. per ton; raw ground, 98-per-cent., 5l. 17s. 6d.

LEAD COMPOUNDS.—Sugar of lead, white, 26l.; brown, 17l. Nitrate of lead, 20l. 10s.—all per ton, less 2½ per cent. Glasgow.

SULPHATE OF COPPER.—Finner. Anchor, 18l.; Liverpool, 17l. 10s.; spring shipment, 18l.

SULPHATE OF AMMONIA is flat, and prices are a shade lower than those last given. Exports from Leith last week only amounted to 229 tons.

BARIUM PRODUCTS.—Moderate business passing, and values fairly well maintained. Mineral sulphate of barytes, 37s. 6d. to 67s. 6d. per ton, according to quality. Precipitated sulphate of barium (blanc fixe), 6l. 12s. 6d. to 6l. 15s.; chloride of barium, best refined crystals, 6l. 15s., free on rails; and 6l. 17s. 6d., f.o.b., in bags. Barium carbonate, mineral, 70s. to 90s. per ton, according to percentage. Hydrate of barium, finest quality, 12l. 10s. to 14l. per ton.

SALTCAKE stands higher, and present figure is about 27s. to 27s. 6d. in bulk, free on rails.

Liverpool Drug-market.

Liverpool, October 19.

CASTOR OIL.—The tendency for the week has been toward slightly lower ranges of prices. Calcutta is still unchanged at 3½d. to 3¾d. per lb.; but French is not held so firmly, and there are sellers at 3½d., or even a shade under, and sellers of Madras have come out at 2½d. per lb. At the same time stocks on the spot are not large, and any improvement in the demand would cause prices to advance.

BALSAM COPAIBA.—A parcel of 13 brls. and 5 tins was offered at auction, but there were no bids for the parcel from the quay, though it is understood that offers were afterwards privately made, but were of such a nature that the holders would not look at them.

CANARY-SEED is better, and small sales are reported at 28s. 6d. per qr., and 54 bags of Spanish changed hands at 42s. per cwt.

CHILLIES (SIERRA LEONE).—Considerable business has been effected during the week, many hundreds of bags changing hands at prices ranging from 30s. to 37s. 6d. per cwt., according to quality. The remaining parcels are held for 37s. 6d. per cwt.

HONEY of all grades maintain a strong position; 216 brls. of Pile 3 Peruvian sold at about 20s. 6d. per cwt., and Chilian is meeting with a better demand in view of the rapidly decreasing stocks of Californian.

GUMS.—Soudan sorts are getting into narrow compass, but only a retail trade is being done by holders. Sales of a few bags of hard amber sorts are reported at 67s. 6d. per cwt.

TURPENTINE.—The upward movement has continued, and sales are being made at 24s. 9d., while some ask 25s. per cwt.

SULPHATE OF COPPER is hardening rapidly. Sales are recorded at 17l. 10s. for December, and 18l. has been paid for the spring, large sales having taken place at these figures.

BEESEWAX is in good demand, and sales are reported at 7l. 12s. 6d. for good Chilian as imported.

ARSENIC.—Powdered white is advancing at 17l. 10s. per ton net. TURMERIC.—A parcel of Madras offered at auction at 20s. and 29s., as in quality, but buyers were not forthcoming at these figures.

SPERMACETI (CHILIAN) is held firmly at 1s. 3d.

German Drug-market.

Hamburg, October 18.

The drug-market is quiet, and there are few changes to record.

AGAR-AGAR is again firmer, and quotes to-day 325m. per 1,000 kilos.

CAMPHOR (Refined) shows little business, the market being steady at 255m. per 100 kilos.

CUMIN-SEED.—Maltese is firm; new crop is very scarce at 52m. per 100 kilos.

CARAWAY-SEED is firmer at 42m. per 100 kilos.

ERGOT OF RYE is very scarce; the demand has been brisk. It seems that America is buying, the price for medium quality being 150m. per 100 kilos.

HONEY is firm for pale amber Californian; 72m. per 100 kilos. has been paid; white, 77m. to 78m. per 100 kilos.

IPECACUANHA is very firm; Rio 24m., Cartagena dearer, at 15m. per kilo.

OPIUM is unchanged at 24m. per kilo.

QUININE is quiet at 26½m. per kilo. nominally.

WAX is firm, Japan for spot delivery being held for 67m. per 100 kilos.

SPIRIT OF TURPENTINE shows a better demand at 47m. to 47½m. per 100 kilos.

TAMARINDS dull, large arrivals having depressed the prices; to-day's quotation, 28m. per 100 kilos.

OILS (FIXED).—Cod-liver unchanged. Castor is quiet: First pressing in barrels 55m. per 100 kilos. for spot delivery, and 54m. per 100 kilos for January-April shipment.

OILS (ESSENTIAL).—Russian anise firmer at 13½m. per kilo. Star-anise oil, 15m. per kilo. Carvol oil firmer at 14½m. per kilo. Citronella quiet at 252m. per 100 kilos. Peppermint, HIGH., unchanged at 5½m. per lb. Japan peppermint firm and dearer at 7½m. per kilo.

American Markets.

New York, October 11.

Business in the drug-line has been of average volume during the past week. No large transactions are reported, but the jobbing trade has been brisk, and all firms report good business demand:—

ALOES, CURACAO, is fractionally higher, in view of improved demand; 3c. to 3¼c. per lb. is now generally quoted.

ASAETIDA has hardened in consequence of active demand; 15c. to 18c. per lb. is the ruling price.

BALSAMS.—Copaiba continues in good supply, and 36c. per lb. will buy good quality Central American. Some lots have changed hands at a lower figure yet. The jobbing price remains at 38c. to 40c. Tolu is dull and neglected; 33c. per lb. is the nominal quotation, but 30c. will buy. Peru has advanced, and \$1.95 to \$2 per lb. is now asked. The demand is improving.

CANNABIS INDICA is scarce, and higher prices are asked for prime quality. Dealers ask from 13c. to 16c. per lb., according to grade.

CITRIC ACID is lower, and in absence of demand quotations are nominal at 35c. to 36c. per lb.

COCOA-BUTTER is firmer, in sympathy with foreign advices, at 33c. to 34c. per lb.

COLCHICUM-CORM is higher, owing to scarcity and foreign advices. The poorer grade has been bought up, and 8c. to 10c. per lb. is asked, according to quality and holder.

DANDELION-ROOT is scarce, and firmly held. Dealers quote 9½c. to 10c. per lb.

GENTIAN-ROOT is slow of sale, at 4¼c. to 4½c. per lb. for whole root.

GRINDELIA ROBUSTA is easier in consequence of arrival of new crop; 5½c. will now buy.

HAMAMELIS-LEAVES (Witch Hazel).—Medium quality can be bought at 4c. per lb. Prime leaves are scarce and higher.

IPECACUANHA.—Rio is scarce, and the spot-stock firmly held at \$2.50 to \$2.60 per lb.

JALAP continues active, and 11c. to 11½c. per lb. is now quoted, and holders are not anxious to sell even at this figure. Higher prices are expected in the future.

PEPPERMINT OIL is steadily hardening, and holders are very firm in their ideas. Prices, however, are as yet unchanged.

SUGAR OF MILK has declined 1c. per lb., and can be bought at 8c. to 9c. for powdered and 13c. to 14c. for crystals. Competition is said to be the cause.

SARSAPARILLA (MEXICAN) is becoming scarce, and prices are hardening with the probability of a further advance. At present 7c. to 8c. will buy.

Exports and Crop-prospects.

ALBUMEN.—The exports from Shanghai during September were 11 piculs, which were shipped to Marseilles.

CUTTLE-FISH.—The exports from Hiogo and Osaka during 1897 were 1,677 tons (52,730L.), as against 996 tons (32,188L.) in 1896.

GINSENG.—The exports from Hiogo and Osaka, Japan, in 1897 were 105,149 lbs., valued at 6,175l.

LANOLINE.—The German exports of lanoline in 1896 were 655 d. cwt. (value 266,000m.), and in 1897 to 827 d. cwt. (331,000m.). In the first half of the current year 441 d. cwt. (176,000m.) were exported, against 436 d. cwt. (174,000m.) at a similar date last year.

OIL, CAMPHOR.—The exports from Hiogo and Osaka in 1897 were 643 tons, valued at 18,435l., as compared with 332 tons, valued at 10,119l. in 1896.

RHUBARB.—A German report states that large consignments have reached Hamburg recently, but the scarcity of prime quality continues. Even in China there is a demand

for the best quality. The market tone is very firm, and with a larger demand; a rise in price is expected.

WAX, JAPAN.—The exports of wax from the ports of Hiogo and Osaka during 1897 were 2,390 tons (71,347*l.*), a against 1,193 tons (37,913*l.*) in 1896.

Cablegrams.

NEW YORK, October 20, 2 53 P.M.:—The drug-market has passed through a fairly active week, and business has been done in the following articles at advancing rates:—Jalap is now 12*c.*, sarsaparilla 8½*c.*, coca-leaves 12*c.*, valerian 10*c.*, serpentaria 25*c.*, and Russian ergot of rye 20*c.* per lb. Mandrake-root is also firmer at 4*c.*, while opium is lower at \$3 58 per lb. Gentian is a dull market at 4*c.* per lb.

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HAMBURG, October 20, 12 59 P.M.:—There has been more demand for quinine at unchanged rates. Refined camphor is very firm at 255*m.* per 100 kilos., and agar-agar is also a rising market.

42 Cannon Street, London, E.C.: October 20.

ACETANILIDE.—Recent competition has brought about an agreement between the principal German makers, who have agreed upon the following rates:—1*s.* 0½*d.* per lb. for small quantities, 1*s.* for 55-lb. lots, 11½*d.* for 1-cwt. lots, and 11*d.* for 5 cwt. Second-hand lots are still available at 11*d.* per lb. for 1-cwt. lots.

ACID, CITRIC.—On Monday, the quotation was reduced by most makers to 1*s.* 2½*d.* per lb., but this price can be shaded to 1*s.* 2*d.* for English B.P. crystals, on the spot; foreign is quoted at 1*s.* 1½*d.* c.i.f.

1 Messina advices, dated October 14, report a quiet market for lemon and bergamot juices. Stocks in Sicily are about 100 pipes, against 1,100 pipes same time last year. The export demand for lemon-juice lately has been small, and prices have declined. Future delivery is quoted at 13*l.* 2*s.* 6*d.* per pipe for December, and 13*l.* for January-April shipment. Bergamot-juice is without business, sellers holding back stocks. December-February delivery is quoted at 10*l.* 15*s.* per pipe nominally.

ACID, TARTARIC is lower, at 1*s.* 0¾*d.* per lb. on the spot for English crystals; foreign, 1*s.* 0½*d.* to 1*s.* 0¾*d.*

ALOES.—Small sales of Socotrine have been made lately at 75*s.* per cwt. Aloes to the amount of 278*l.* was exported from Cape Colony during the first four months of 1898, as compared with 517*l.* for the corresponding period of 1897.

ARSENIC.—Quiet, at 17*s.* 6*d.* per cwt. for best white English powder on the spot.

BENZOLIN.—The inquiry continues fairly good, especially for Sumatra firsts, of which there is an inadequate supply.

BUCHU.—Exceedingly slow. Good round green leaves are obtainable at 6½*d.* per lb.

CALUMBA.—The price for natural is 18*s.* per cwt., with a firmer tendency.

CAMPHOR.—Prices for crude are maintained, but no business has been done. Refined is firm and unaltered.

The exports from Canton and Hong-Kong to the Continent from January 1 to September 17 were:—

	1898	1897	1896	1895
Boxes ...	13,235	20,329	18,146	17,614

The stock of Formosa camphor in Hong-Kong on September 17 was 7,400 cases.

CANNABIS INDICA.—There is none to be had except in second-hands; the last price paid was 6½*d.* per lb. for poorish tops, and 7*d.* is now asked; siftings may be had at 6*d.*

CARDAMOMS.—A good business has been done since the auctions at the rates then current.

The shipments from Ceylon for the week ending September 27 were 6,403 lbs.; and from January 1 to September 27:—

	1898	1897	1896	1895
Lbs. ...	357,635	366,033	243,177	230,255

CASCARA SAGRADA.—New bark is now 23*s.* 6*d.* per cwt., c.i.f., and five-year-old bark has sold at 23*s.*, but there is plenty a year younger to be had at 25*s.*

CHIRETTA.—No fine quality is available in London, while reports from India indicate that the new crop is a poor one; for dark, from 4½*d.* to 5½*d.* per lb. is asked.

CINCHONA.—There has been a fair demand for druggists' and manufacturing bark this week at unchanged rates. The quantity of bark to be offered at the next Amsterdam auction amounts to 634,453 kilos.

The exports from Ceylon from January 1 to September 27 were:—

	1898	1897	1896	1895
Lbs. ...	723,482	530,646	881,743	803,834

CINCHONIDINE.—Good business continues to be done at 7½*d.* per oz., and manufacturers' stocks are low

CIVET.—An easier feeling has been apparent lately, and some holders feel disposed to accept slightly lower prices. Quotations run from 10*s.* 6*d.* to 15*s.* per oz., according to quality.

CLOVES.—Zanzibar cloves are dearer; 230 bales good fair at auction sold at 3½*d.* per lb., while 4*d.* has been paid for October-December delivery, and 3½*d.* for March-May. Penang sold at 10½*d.* to 10¾*d.* per lb. for fine, and at 6½*d.* for fair.

Reports from Pemba and Zanzibar show that the coming crop is likely to be an exceptionally good one, if the Arabs will only wake up and employ sufficient hands to gather the buds; but that they will not do, so that the actual harvest will be far short of the available crop.

COCA-LEAVES.—Fair Huanoco leaves are held for 9*d.* per lb., and green Truxillo at 7*d.*

COCOA-BUTTER.—The Amsterdam auctions to be held on November 1 will consist of 70 tons Houten's, 10 tons Hamer, 15 tons Helm, and 10 tons Suchard's. At the London auctions on the same day 65 tons of Cadbury's will be offered.

COLCHICUM-SEED.—One holder asks 42*s.* per cwt.

COPPER SULPHATE.—A large business has been done recently at 17*l.* per ton for ordinary brands on the spot. Anchor brand is 18*l.*

DRAGON'S-BLOOD continues in good demand for finest quality. The s.s. *Japan*, which arrived last week, brought 13 cases, consisting of 9 cases reeds and 4 cases fairly bright lump. The latter, we understand, were sold privately for export as soon as samples were up, the price paid being about 10*l.* 10*s.* per cwt.

ERGOT.—The London market has been slow to respond to our advice of October 8 as to the upward movement, but this week has seen a rush, last year's crop of Russian, taking it as it comes, having sold at 8*d.* to 9*d.* per lb., and good sifted at 11*d.* Spanish has sold at from 10*d.* to 1*s.* 1*d.* per lb., and fine bold Italian at 1*s.* to-day. The stocks in London are not large, but are adequate for the demand, although the quality in all cases is poor and wormy. The new crop has not yet come forward, but Russian is offered at 8½*d.* to 9*d.* per lb., c.i.f. There is little of it, and it is very small in spur.

GALLS.—Persian remain firm, with retail sales at 54*s.* per cwt. for blue Persian, and 50*s.* for green. Chinese are quiet on the spot at 55*s.* to 56*s.* per cwt. for fair, but Shanghai advices give 58*s.* as the price. For Japanese there are buyers, but no sellers.

GENTIAN.—The arrivals reported lately are said to be going directly into consumption. Ordinary red is available at 18*s.* per cwt.

GOLDEN SEAL.—The stocks in New York are reported light, but the country dealers are coming forward more freely, and the article is quoted in London at 1*s.* 10½*d.* to 1*s.* 11*d.* per lb., c.i.f. terms.

GUM ARABIC.—Market for Soudan sorts remains steady with small supplies; from 65*s.* to 75*s.* is asked, according to quality. A fair business is reported in the new arrivals of Persian "insoluble," at from 23*s.* to 25*s.* for pale selected, and fair to fine sorts at 16*s.* to 21*s.* per cwt. The *Seasdale* has brought 400 bags, and there are 1,200 bags on the way per *Parran*.

GUMS (VARNISH).—At the sales to-day nine firms offered kowie, copal, and other varnish-gums, and they went off well at steady prices. For example, "dial" copal, pale, and of ex-

ceptional quality, sold at 15*l.* 12*s.* 6*d.* per cwt., and fine pale at 11*l.* Ordinary Zanzibar anims sold at 10*l.* 5*s.*; good glassy Madagascar, 3*l.* 15*s.*, and pale Manilla copal, 60*s.* to 67*s.*

INSECT-FLOWERS.—The London market is firm, at 100*s.* per cwt. for closed and 65*s.* for open flowers.

IPECACUANHA.—Rio root has sold at 10*s.* to 10*s.* 1*d.* per lb. this week, and 7*s.* to 7*s.* 2*d.* has been paid for Cartagena, so that the recent arrivals of both kinds have not weakened the market.

JALAP.—A considerable business has been done recently for the United States, at 5½*d.* per lb., and the market has been practically cleared of second-hand stuff at this figure. In second hand, holders now ask from 6*d.* to 6½*d.*, and a bid of 5½*d.* for a round lot has been refused.

JUNIPER-BERRIES.—Sifted can be had at 9*s.* per cwt. on the spot, in 10 or 20 bag lots.

KOUSO.—There is no stock in first hands in London; importers require 1*s.* per lb. for fair.

OIL, BERGAMOT.—Oil of new crop is offered at 7*s.* 9*d.* per lb. for January delivery. The old is likely to be scarce before the new arrives, and 9*s.* to 9*s.* 3*d.* is wanted for fine oil.

OIL, CASTOR.—There has been a large amount of business done during the past fortnight, and although prices forward are somewhat easier, spot-quotations are firm owing to scarcity. Belgian firsts are at last week's rates, and Italian firsts 36*s.* per cwt., c.i.f. Oil of British make is quoted at 27*s.* 9*d.* in barrels and 3½*d.* for first pressing in cases for November delivery; second pressing 25*s.* and 3½*d.* respectively for prompt delivery, f.o.r. or f.o.b., Hull.

OIL, CINNAMON.—Without alteration, at 1*s.* 1½*d.* in tins, and 1*s.* 1*d.* for drums on the spot.

Ceylon shipments from January 1 to September 27 were:—

1898	1897	1896	1895
lbs.	lbs.	lbs.	lbs.
130,795	109,334	93,947	40,498

OIL, COD-LIVER.—Unchanged, with fair inquiry, but not much business. On the spot 82*s.* per barrel is the lowest price for 1898 oil.

BERGEN, October 15.—The market remains in the same sluggish condition, the tendency, however, being weaker at 76*s.* per barrel, f.o.b. terms, for best Lofoten non-congealing medicinal oil. The exports from Bergen up to date have been 6,540 barrels against 8,117 barrels at the corresponding period of last year.

OIL, LAVENDER.—Finest English is held for 45*s.* per lb. The de-officialising of English oil has retarded sales very much this season.

OIL, LEMON.—New crop of well-known brands for December-January shipment are quoted at from 3*s.* 6*d.* to 3*s.* 9*d.* per lb. c.i.f.; genuine oil of the last crop is 4*s.* to 4*s.* 6*d.*

OIL, LEMONGRASS.—Business was done at the close of last week at 2½*d.* per oz. c.i.f. Havre for October-December delivery.

OIL, OLIVE.—Reports to hand this week indicate that the crops in Sicily and Calabria have been damaged by sirocco winds and heat. It is expected, however, that the crop will turn out more than half an average one. In Sicily, the gathering and pressing is in full progress, and it has also commenced in the coast districts of Calabria with the olives which have fallen from the trees owing to the heat. The market remains firm in Messina. In London, prices of finest oils are said to have an advancing tendency. Lucca grades have been dealt in at from 4*s.* 6*d.* to 5*s.* 6*d.* per gallon according to quality. Lucca cream, extra, 70*l.* per ton of 1,045 kilos.; cream, 66*l.*; extra sublime, 61*l.*; sublime, 57*l.*; and superfine, 49*l.* c. and f. terms.

OIL, PEPPERMINT.—We hear that a fair quantity of American HGH has been sold this week to arrive at rather under 5*s.* 6*d.* per lb., landed terms; on the spot the market is slightly easier, at 5*s.* 4½*d.* to 5*s.* 6*d.* Wayne County is also easier.

OIL, STAR-ANISE.—Cheaper, owing to the lower prices obtained in auction last week. Since then business has been done in new for October-December delivery at 5*s.* 9*d.* per lb., c.i.f.; and 6*s.* 2*d.* is the spot quotation. Tonkin oil of the new crop is selling at 5*s.* 11*d.* per lb., c.i.f., and 6*s.* 4*d.* per lb.

spot; but these terms might be shaded. The stock on September 17 at Hong-Kong was about 50 piculs.

OPIUM.—Quiet, with no sales of importance. Holders of Persian remain firm, at 11*s.* 9*d.* for fine down to 11*s.* for medium stuff. In Turkish soft-shipping a small business has been done at full prices, up to 13*s.* 9*d.* per lb. being asked for fine down to 10*s.* 6*d.* for ordinary seconds. Smyrna druggists' (10 per cent.) is 9*s.* 10*d.*, c.i.f. terms. Easier prices are reported by cable.

SMYRNA, October 8.—It has been difficult to do business this week in spite of higher prices having been paid, and the weekly sales amount to 27 cases only, comprising new Karahissar at the equivalent of 10*s.* 3*d.*; new current talequale, 10*s.* 2*d.* to 10*s.* 3*d.*; old Karahissar, 10*s.* 4*d.*; old Yerli, 10*s.* 8*d.*, and inspected Yerli at 11*s.* 1*d.* per lb., c.i.f. European ports. Twenty four of these cases were for exportation, and the remainder for speculative account. Notwithstanding the advanced season, 1 per cent. waste is still allowed on new opium. The majority of the dealers are only selling small quantities in view of the persistent drought, and great uneasiness is felt, as for the past six months not a drop of rain has fallen. The arrivals have been 957 cases, against 2,550 cases at the corresponding period of 1897.

SMYRNA, October 15.—Owing to the rain which has fallen in the interior, sellers are more anxious to realise, and a decline to 10*s.* is looked for on current qualities. This week only two baskets have changed hands, for continental consumption, at 10*s.* 3*d.* for Karahissar talequale, and 10*s.* 5*d.* for good Yerli.

CONSTANTINOPLE, October 14.—The only sale to report this week is a parcel of 10 cases Baloukissar at 10*s.* 7*d.* per lb., f.o.b. Rain has fallen in sufficient quantity to allow tilling the ground and sowing the seed, but has had as yet no effect on prices here. The market is steady and firm, at 10*s.* f.o.b. for druggists' grades.

ORRIS.—Prices from Messina remain steady, and it is thought on the other side that they would have been higher if the exchange had not risen. A new arrival of Verona root in this week is offered at from 17*s.* to 22*s.* per cwt., according to quality. Extra-picked Florentine remains unchanged at 36*s.*

POTASH PERMANGANATE.—Quiet, and lower, the agents for Schering's brand having again reduced their quotation from 50*s.* to 48*s.* 6*d.* per cwt. for small crystals in contract quantities, and it is possible to buy other brands at this figure.

QUICKSILVER.—Unchanged; but little to be had in second hands, at 7*l.* 4*s.* per bottle.

QUININE.—Manufacturers are very firm at 10*d.* per oz., and do not care to sell more than 5 000-oz. lots at this figure. Second-hand price is also 10*d.*, with little business doing.

RHUBARB has been going fairly well this week at auction prices.

SCAMMONIUM.—Virgin firsts are steady, but with little inquiry, at from 25*s.* to 30*s.* per lb. Resin quiet, at 6*s.* to 6*s.* 3*d.* per lb. Supplies of root are moderate; 22*s.* per cwt. is nominally asked.

SEEDS.—*Linseed* is in more demand, with sales of clean small Dutch at 42*s.* to 43*s.* per qr, and bold Morocco at the same price. Morocco *Pennegreek* is dearer: 7*s.* 6*d.* to 7*s.* 9*d.* per cwt. has been paid for a good quantity, but 8*s.* to 8*s.* 6*d.* is now demanded. *Cumin* steady, with Malta selling at 27*s.* per cwt., and Mogador quoted at 23*s.* to 25*s.* per cwt. *Coriander* is going into consumption, at 6*s.* to 6*s.* 6*d.* per cwt. for old seed; new-crop Morocco is offered at 10*s.* per cwt. to arrive. There is a fair trade doing in the finer qualities of *Canary-seed* at steady rates, but speculators in this article are waiting developments. *Caranays* dull and unchanged, at 22*s.* per cwt. New-crop Russian *Anise* is offering at 19*s.* 6*d.* per cwt., usual drug-sale terms.

SENEGA.—Minnesota is unchanged, at 1*s.* 1½*d.* per lb. c.i.f.

SENNA.—Little business has been done since the auctions. A consignment of 401 bales Timnevely has come to hand, which will be offered next week. In Alexandrian small sales of siftings are reported at 2½*d.* per lb.

SHIELLAC.—At the fortnightly auctions on Tuesday a moderate supply consisting of 1,105 cases was offered, of which 600 sold at about 2*s.* decline for TN second orange. The following were some of the prices paid:—Second

orange: fine palish part cakey 66s. to 67s., fair reddish 61s., bright red part blocky 62s. to 63s., ordinary weak flat red 61s. to 62s., free red livery 60s. to 61s., and common livery hard block 59s. per cwt. Garnet: free ruby 59s., ditto blocky 53s. Button: pure native 89s., low fourths 48s., and common blocky 37s. to 28s. Since the auctions the demand has continued slow with small sales on the spot, including second orange at 65s. to 66s. per cwt.

SPICES.—Both black and white *Pepper* are lower, but Zanzibar *Cloves* are dearer, and *Pimento* firmer, other articles being unchanged. At auction on Wednesday Cochin *Ginger* was steady; washed rough sold at 23s. per cwt. for fair, and at 21s. for rather dull and wormy; medium and small native cut, slightly wormy, at 40s. per cwt. No Jamaica offered. Bengal and Japan quiet at late rates. *Pimento* firmer; part of the quantity offered sold at 4½d. to 4¼d. per lb. for ordinary to fair. *Nutmegs* and *Mace* quiet. *Cinnamon* sold at 9d. per lb. for pieces, and at 8½d. for featherings. *Pepper* lower; Singapore white sold at 7½d. per lb. for October-December shipment, and Penang at 7½d. for November-January steamer. Singapore black is quoted 4¾d. on the spot; November-January shipment sold at 4¾d. per lb. *Cassia lignea* steady at 56s. per cwt. for whole, old import, and broken at 35s. to 40s. per cwt.

STAR-ANISE.—Chinese are firmly held for 125s. per cwt. on the spot, and little available at that; for arrival, 96s. c.i.f. is quoted.

The exports from Hong-Kong and Canton from January 1 to September 17 amounted to 10 boxes, against 50 boxes at the corresponding period of 1897. Advances dated Hong-Kong, September 17, report that a further 45,000 piculs have been bought for November-December delivery at figures ranging from \$47½ to \$49 per picul.

TONKA-BEANS.—Fair Argostura beans can be had at from 3s. 4d. to 3s. 6d. per lb.; 3s. 2d. was bid and refused in auction last week.

TURMERIC.—At the dry-al'ery auctions 100 bags Bengal offered, and sold without reserve at lower prices, viz. 17s. 3d. to 17s. 6d. per cwt. for fair finger slightly wormy. Cochin and Madras were bought in.

Produce-notes.

JAPANESE CROTON.

Included in the last drug-auction was a parcel of these seeds from Yokohama (*C. & D.*, page 655), about which a doubt as to genuineness was expressed to us. The seeds are somewhat smaller and flatter than the usual commercial article, but there is little to show that they are afforded by the same plant—viz., *Croton tiglium*. This species is a small tree, 15 to 20 feet high. It is not indigenous to Japan, but is cultivated in that country, as also in Mauritius. In India it is found both wild and cultivated, and its natural distribution extends to Ceylon, Borneo, and the Philippine Islands. The Japanese seeds appear to have all the characteristics of the official croton-seeds, but as they have not hitherto been noted by pharmacognosists it would be desirable if a comparative report of their constituents were made.

CEYLON KINO.

This product is somewhat rare in the London market. A parcel was offered at the last drug-sales and noted in a recent issue (*C. & D.*, page 655). There is little doubt that it is derived from the same tree as Indian kino—namely, *Pterocarpus marsupium*—a large deciduous tree of Central and Southern India and Ceylon extending as far northward in India as the North-West Provinces. This tree is of considerable economic interest; its timber, which is known as "bastard teak," is valuable for furniture, house-building, sleepers, &c.; the leaves afford an excellent fodder for cattle and goats. In Ceylon the tree is known under the name "Gammalu," and the bark, which is very astringent, is employed by the natives in diarrhoea. The kino is obtained by making perpendicular incisions in the bark with lateral ones leading into them, at the base of which vessels are placed to receive the juice which soon thickens. Carefully-made incisions do not injure the tree.

Coming Events.

We insert notices of association and society meetings in this section free if they are sent to us, on postcards, by the Wednesday of the week before the meetings are to be held.

Tuesday, October 25.

Royal Photographic Society, 5A Pall Mall East, at 8 p.m. "The Alleged Discovery of Photography," by Mr. R. B. Litchfield; "The Grain of Photographic Negatives," by Mr. E. D. Stoney.

North-east Lancashire Chemists' Association. Special general meeting at the White Bull Hotel, Blackburn, at 8.30 p.m. Resolutions urging the Pharmaceutical Council to more vigorous action, and on company-pharmacy will be submitted. *Bradford and District Chemists' Association*. Opening meeting at the Great Northern Victoria Hotel, Bradford. The President (Mr. A. H. Waddington) will deliver an address.

Wednesday, October 26.

Nottingham and Notts Chemists' Association. First general meeting of the session at the Albert Hotel, Derby Road, Nottingham, at 9 p.m. Mr. W. Gill will read a paper, entitled "Company-pharmacy Considered with a View to Legislation Thereon."

Thursday, October 27.

Glasgow and West of Scotland Pharmaceutical Association. Opening Address by Dr. Ralph Stockman (Professor of Materia Medica in Glasgow University) on the "Sources of our Pharmacopœia."

Chemists' Assistants' Association. Cinderella dance in the Portman Rooms, Baker Street, W.; tickets obtainable from the Hon. Secs., Mr. C. Morley, 3 Bucklersbury, E.C., and Mr. H. H. Robins, 113 Ridley Road, Forest Gate, E.

Saturday, October 29.

Brewers' and Mineral-water Manufacturers' Twentieth Annual Exhibition and Market opens at the Agricultural Hall, London, N.

Midland Pharmaceutical Association, Birmingham. Inaugural meeting on November 3, when Mr. G. C. Druce, M.A., will give an address.

Chemical Society, Burlington House, Piccadilly.—The ordinary meetings for the coming session will be held on Thursdays, as follows:—November 3 and 17, December 1 and 15, January 19, 1899, February 2 and 16, March 2 and 16, April 20, May 4 and 18, June 1 and 15, at 8 o'clock each evening. The annual general meeting will be held on Wednesday, March 29, 1899. Banquet to Past Presidents at the Hotel Métropole on Friday, November 11. Tickets, one guinea each, can be obtained from the Assistant-Secretary, Burlington House, W.

The Federation Programme.—The Hon. Sec. of the Federation of Local Associations has circulated the associations suggesting that a date in the month of December be selected for simultaneous discussion by the various associations throughout the country of the subjects suggested by the Federation—viz.: (a) That the names of present proprietors of businesses with ancient titles should be used; (b) that local associations should induce all chemists to join the Pharmaceutical Society; (c) should the Pharmaceutical Societies Regulations re Storage of Poisons be made by-laws of the Society; and (d) the whole question of company-trading. It is proposed that the discussions should be opened by the delegate who was present at Belfast. The towns then represented through associations were Edinburgh, Blackburn, Liverpool, Plymouth, Manchester, Newcastle, Glasgow, Birmingham, Cambridge, Dundee (Forfarshire), and Burnley.

We understand that Mr. H. Christey is taking over the drug-part of Messrs. G. N. Souratty & Co's. business to Messrs. Hale & Son.

THE SHARP BROTHERS SOAP AND PERFUMERY COMPANY (LIMITED), Red Lion Square, W.C., inform us that they have been awarded a gold medal for perfumery and toilet-soaps at Earl's Court Exhibition.

GERMAN CHEMICAL COMPANIES.—The following dividends are announced:—Deutsche Gold und Silber-Scheide-Anstalt, Frankfurt a-M., 12½ per cent.; Chemische Fabriken Harburg, Stassfurt (formerly Thörl & Heidmann), 8½ per cent.; Vereinigte Chemische Fabriken zu Leopoldshall, 5 per cent.; and Stassfurter Chemische Fabrik, 10 per cent.